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#53 p. 33

University of California  
College of Agriculture  
Agricultural Experiment Station  
Berkeley, California

SEASONAL LABOR NEEDS FOR CALIFORNIA CROPS

RIVERSIDE COUNTY

Progress Report No. 33

Palo Verde Valley  
Coachella Valley  
Western Riverside County

Progress Report No. 33

by

R. L. Adams

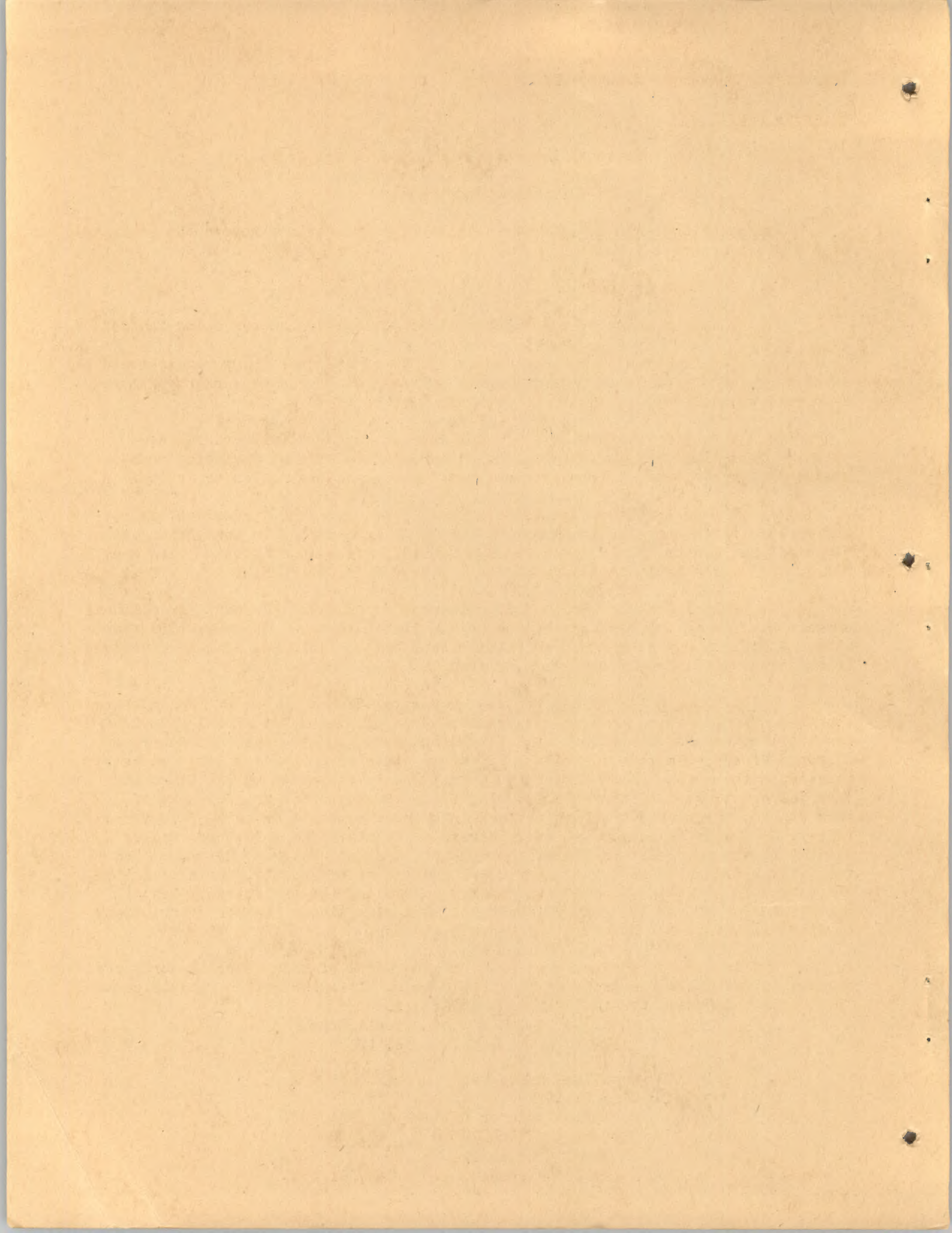
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Progress Report #33

Seasonal Labor Needs for California Crops

Riverside County

Scope of Presentation.-- The following considerations govern the presentation of this progress report:

1. The data are confined to the area indicated above.
2. The data are confined solely to crops, livestock needs being ignored.
3. The findings apply only to occasional or seasonal labor requirements as distinguished from labor contributed by farm operators and by workers employed on a year-round or regular basis of employment.
4. Attention is concentrated upon workers required for hand tasks -- planting, thinning, weeding, hoeing, and harvesting -- without including teamsters, tractor drivers, irrigators, and shed packers of vegetables or fruits.
5. The presentation includes the so-called migratory, transient, or roving workers which comprise an important source of help needed in connection with certain tasks and at "peak" times which seasonally arise in connection with many field, truck, and fruit crops commercially produced in California.
6. This report is confined to California's need for seasonal agricultural workers because of the more pressing problems liable to arise in connection therewith. A later study is planned which will deal with other kinds of labor involved in the production of California's many crops.

Brief Description of the Area.-- Riverside County is one of the southern counties of California, and extends eastward from a point about 40 miles east of Los Angeles, across the state to the Nevada boundary, and the Colorado River, a distance of approximately 180 miles. It has a width of about 45 miles, and is bounded on the north by San Bernardino County and on the south by San Diego and Imperial counties. On the west, it joins Orange County. For the purposes of this report, the county has been divided into three separate units -- Palo Verde Valley, Coachella Valley, and Western Riverside County. The Palo Verde Valley lies at the extreme eastern end of the county, along the Colorado River. The Coachella Valley lies in the south-central portion of the county, north of Salton Sea. Western Riverside County includes the balance of the agricultural lands which lie west of the San Jacinto and Santa Rosa mountains. Further descriptions of these districts are given in the reports on each.

The county contains a total of 4,622,720 acres of which 345,501 acres are classed as available for crops by the 1935 Census. This is further classified as follows by the Census for the crop year 1934:

	<u>Acreage</u>
Crop land harvested	182,086
Crop failure	36,812
Crop land idle or fallow	102,233
Plowable pasture	24,370
Total land available for crops	345,501



Seasonal Labor Needs for California Crops

Riverside County

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4. Attention is concentrated upon workers required for hand tasks -- planting, thinning, weeding, hoeing, and harvesting -- without including teamsters, tractor drivers, irrigators, and shed packers of vegetables or fruit.
5. The presentation includes the so-called migratory, transient, or "dry" workers which comprise an important source of help needed in connection with certain tasks and at "peak" times which seasonally arise in connection with many field, truck, and fruit crops commercially produced in California.
6. This report is confined to California's need for seasonal agricultural workers because of the more pressing problem of labor in connection therewith. A later study is planned which will deal with other kinds of labor involved in the production of California's many crops.

Brief Description of the Area.-- Riverside County is one of the southern counties of California, and extends eastward from a point about 40 miles east of Los Angeles, across the state to the Nevada boundary, and the Colorado River, a distance of approximately 180 miles. It has a width of about 45 miles, and is bounded on the north by San Bernardino County and on the south by San Diego and Imperial counties. On the west, it joins Orange County. For the purposes of this report, the county has been divided into three separate units -- Palo Verde Valley, Coachella Valley, and Western Riverside County. The Palo Verde Valley lies at the extreme eastern end of the county, along the Colorado River. The Coachella Valley lies in the south-central portion of the county, north of Salton Sea. Western Riverside County includes the balance of the agricultural lands which lie west of the San Jacinto and Santa Rosa mountains. Further descriptions of these districts are given in the reports on each.

The county contains a total of 4,822,780 acres of which 345,501 acres are classed as available for crops by the 1935 Census. This is further classified as follows by the Census for the crop year 1934:

ACRES	
182,086	Crop land harvested
34,812	Crop fallow
102,233	Crop land idle or fallow
24,230	Potential pasture
345,501	Total land available for crops



Findings of Seasonal Labor Needs.--- Details and summaries of seasonal labor requirements of Riverside County, are presented separately for Palo Verde, Coachella, and Western Riverside counties, as table 3. The "size of task" are figures drawn from table 1 in terms of either acreage or output in tons, crates, boxes or whatever unit is commonly used. The "output per man-day" is an average figure for the entire acreage or output. If the work is of a nature that requires a crew, different members of which perform different tasks (such as pulling, sorting, bunching, and tying carrots, etc.), then the average shown is per man based on the entire crew. Length of day is 9 hours, unless otherwise stated. Wide variations in output occur between farm and farm, field and field, season and season, because of differences in soil types, climatic conditions, weeds, yields and other factors influencing the amount of work that a man can do in a given day. Moreover, the basis of output is a mature, experienced male worker, without reference to the use of women, children, and more or less inexperienced help that is sometimes used in connection with certain of the tasks requiring the use of seasonal workers. The column headed "available days" reflects (a) limitations set from the period within which the work must be performed because of the nature of the task, such as thinning, weeding, fruit picking, etc., and (b) the available days as determined by weather conditions, inclement weather reducing the number of days when a required task can be performed. The "required number of individuals" is given in terms of workers as noted above in connection with "output per man-day."

It is probable that the estimated number of workers required, as recorded in table 3, will often be too low, for the reason that "peaks" frequently occur, during which an unusually large proportion of the job is done in a very short period. This would naturally require a much greater number of workers than when the work is spread over a longer period, although the total amount of labor in man-days would not be changed materially.

TABLE 1.  
Basis for Calculating Seasonal Labor Requirements -- Riverside County, other than Coachella and Palo Verde Valleys

Crop	Acreage*	Production*
Field crops:		
Alfalfa	18,945	95,890 tons (90% baled = 86,300 tons)
Alfalfa seed	1,850	
Beans (dry)	1,271	15,700 sacks
Sugar beets	121	1,417 tons
Corn	280	95 tons grain
Corn (Indian) †	457	7,650 tons ensilage
Grain	49,003	
Hay (grain hay) oats or barley	13,000	13,610 tons
Milo Maize †	158	48 tons
Onions	225	66,750 sacks of 100 pounds
Potatoes	2,149	257,836 sacks of 100 pounds
Seed (Sugar beet)	410	650 tons
Seed (Onion) †	40	8,640 pounds
Truck crops:		
Asparagus	97	4,767 crates
Carrots †	55	

(Table 1 continued on next page.)



**Findings of Seasonal Labor Needs.** -- Details and summary of seasonal labor requirements of Riverside County, are presented separately for Palo Verde, Coachella, and Western Riverside counties, as Table 2. The "size of task" are figures drawn from Table 1 in terms of either acreage or output in tons, crates, boxes or whatever unit is commonly used. The "output per man-day" is an average figure for the entire acreage or output. If the work is of a nature that requires a crew, different members of which perform different tasks (such as plowing, setting, punching, and tying canes, etc.), then the average shown is per man based on the entire crew. Length of day is 9 hours unless otherwise stated. Wide variations in output occur between farms and farms, fields and fields, and seasons, because of differences in soil types, different weather conditions, and other factors influencing the amount of work that can be done in a given day. Moreover, the degree of output is a matter of experience and skill without reference to the use of women, children, and men or less experienced. The use of seasonal workers. The column headed "available days" reflects the number of days that is sometimes used in connection with certain of the tasks requiring labor. Limitations set from the period within which the work must be performed, such as the nature of the task, such as thinning, weeding, fruit picking, etc., and the nature of the available days as determined by weather conditions, frost, etc., etc. (a) reducing the number of days when a required task can be performed. The "available days" is given in terms of workers as noted above in connection with the number of individuals. It is given in terms of workers as noted above in connection with "output per man-day".

It is probable that the estimated number of workers required, as shown in Table 2, will often be too low, for the reason that "peak" periods frequently occur during which an unusually large proportion of the job is done in a very short period. This would naturally require a much greater number of workers than when the work is spread over a longer period, although the total amount of labor in man-days would not be changed materially.

TABLE 1  
Basis for Calculating Seasonal Labor Requirements -- Riverside County, Western San Coachella and Palo Verde Valleys

Crop	Acreage*	Production*
Field crops:		
Alfalfa	13,745	25,690 tons (50¢ yield = 52,380 tons)
Alfalfa seed	1,850	
Beans (dry)	1,371	13,700 sacks
Sugar beets	121	1,417 tons
Corn	280	95 tons grain
Corn (Indian?)	452	7,550 tons shelled
Grain	48,002	
Hay (grain hay) oats or barley	13,000	13,610 tons
Milo	158	48 tons
Onions	325	66,750 sacks of 100 pounds
Potatoes	2,125	227,636 sacks of 100 pounds
Seed (sugar beet)	410	650 tons
Seed (onion?)	40	6,540 pounds
Truck crops:		
Asparagus	97	4,757 crates
Carrots	55	

(Table 1 continued on next page.)



Table 1 continued.

Crop	Acreage*	Production*
Truck crops: (cont'd)		
Lettuce†	50	
Melons, cantaloupes	197	442 tons
Casaba	40	150 tons
Japanese melons	53	350 tons
Persian	170	1,300 tons
watermelons	966‡	6,792 tons
Potatoes, sweet†	45	302 tons
Spinach	250	20 tons §
Squash†	384	2,580 tons
Tomatoes	1,192	6,299 tons
Vegetables (mixed)	321	
Strawberries	31	5,150 crates
Other berries	40	1,600 crates
Orchard crops:		
Almonds	1,053	41 tons ¶
Apples†	180	160 tons
Apricots	4,422	3,148 tons (dry weight) 21,069
		5,329 tons (green ) green
		(weight ) tons
Avocados†	55	43 tons
Cherries	840	750 tons
Citrus, lemons	3,486	519,654 packed boxes
miscellaneous		
citrus	612	131,638 packed boxes
Navels	13,053	2,080,884 packed boxes
		308,580 field boxes
Pomelo	717	(194,291) field boxes
Valencias	3,865	610,296 field boxes
Figs†	132	77 tons
Grapes, wine	4,997	1,467 tons
Olives	888	176 tons
Peaches, cling	1,109	2,674 tons
free	1,038	1,035 tons
Pears†	85	45 tons
Pecans†	14	--
Persimmons†	75	62 tons
Plums	81	246 tons
		2,010 tons (dry weight) 5,435
Prunes	600	410 tons (green ) green
		tons
Walnuts	5,198	2,274

\* Acreage and production figures are from office of A. E. Bottel, Agricultural Commissioner.

† Use of seasonal labor inconsequential and hence ignored.

‡ About 50 per cent of watermelon acreage estimated protected by paper covers.

§ Spinach is a new crop in this district. Production estimated to be about 250 tons normally.

¶ Normal production of almonds is about 200 tons. 1935 crop was very light due to frost injury.

|| Only about 1,500 acres of vineyard actually in good production. Balance is more or less neglected.



Table 1 continued

Crop	Average	Production*
Walnuts	5,198	2,574
Prunes	600	410 tons (green) 2,010 tons (dry weight)
Plums	81	246 tons
Persimmons†	75	62 tons
Peaches†	14	—
Pears†	82	45 tons
Tree	1,038	1,035 tons
Peaches, cling	1,109	2,574 tons
Olive	366	176 tons
Grapes, wine	1,997½	1,467 tons
Plant†	122	77 tons
Vegetables	2,865	610,296 field boxes
Potatoes	717	(194,281) field boxes
Waxels	12,053	206,580 field boxes
Olives	—	2,080,884 packed boxes
Almond	612	131,438 packed boxes
Citrus, lemon	2,486	512,684 packed boxes
Cherries	840	750 tons
Avocadoes†	55	45 tons
Strawberries	4,422	2,329 tons (green) 2,348 tons (dry weight)
Apples†	180	160 tons
Almonds	1,053	41 tons
Orchard crops		
Other berries	40	1,600 crates
Strawberries	31	2,150 crates
Vegetables (mixed)	321	
Tomatoes	1,192	6,289 tons
Squash†	384	2,580 tons
Spinach	250	20 tons
Potatoes, sweet†	45	305 tons
Watermelons	963†	6,792 tons
Persimmon	170	1,300 tons
Japanese melons	53	380 tons
Cucumbers	40	180 tons
Melons, cantaloupes	127	442 tons
Lettuces†	20	
Truck crops (cont'd)		

\* Average and production figures are from office of A. E. Bortel, Assistant General Commissioner.  
† Use of seasonal labor indispensable and hence favored.  
‡ About 50 per cent of watermelon acreage estimated protected by paper covers.  
§ Spinach is a new crop in this district. Production estimated to be about 250 tons normally.  
¶ Normal production of almonds is about 200 tons. 1935 crop was very light due to frost injury.  
|| Only about 1,500 acres of vines yet actually in good production. Balance in more or less neglected.



Operations Requiring Use of Seasonal Labor and Times of Need.-- Farm operations requiring the use of seasonal or occasional labor for the various crops raised in Riverside County, exclusive of the Coachella and Palo Verde valleys, are indicated in table 2. This tabulation does not include the employing of shed workers needed to wash, pack, and prepare various commodities for shipping and marketing.

TABLE 2

Operations Requiring Use of Seasonal Labor and Times of Needs by Crops -- Riverside County, exclusive of Coachella and Palo Verde Valleys

Crop	Operation	Time of need
Field crops:		
Alfalfa hay	Mowing (50 per cent by seasonal labor)	April--three-fourths of acreage May--three-fourths of acreage
	Raking (50 per cent by seasonal labor)	June--all acreage July--all acreage August--all acreage
	Shocking (80 per cent by seasonal labor)	Sept.--three-fourths of acreage Oct.--three-fourths of acreage
	Hauling and baling (80 per cent by seasonal labor)	April--12 per cent of tonnage baled May--15 per cent of tonnage baled June--17 per cent of tonnage baled July--17 per cent of tonnage baled Aug.--17 per cent of tonnage baled Sept.--12 per cent of tonnage baled Oct.--10 per cent of tonnage baled
Alfalfa seed	Threshing	Sept.--15-30 50 per cent of crop Oct.--1-15 50 per cent of crop
Beans (mostly blackeye)	Hoeing	July--all acreage
	Bunching after cutter (by hand with fork)	Sept.--50 per cent of acreage Oct.--50 per cent of acreage
	Threshing (by stationary) (60 per cent by seasonal labor)	October--all crop
Sugar beets	Thinning Hoeing Topping and loading	April May September
Grain, harvesting	Harvesting	June--50 per cent of crop July--50 per cent of crop

(Table continued on next page)



Operations Requiring Use of Seasonal Labor and Time of Need -- River-  
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Operations Requiring Use of Seasonal Labor and Time of Need by Crops -- River-  
 alide County, exclusive of Coachella and Palo Verde valleys

Crop	Operation	Time of need
Field crops: Alfalfa hay	Hauling (50 per cent by seasonal labor)	April--three-fourths of acreage May--one-fourth of acreage
	Baling (50 per cent by seasonal labor)	June--all crops July--all crops August--all crops
	Shocking (50 per cent by seasonal labor)	Sept.--three-fourths of acreage Oct.--three-fourths of acreage
	Hauling and baling (50 per cent by seasonal labor)	April--15 per cent of tonnage May--15 per cent of tonnage June--15 per cent of tonnage July--15 per cent of tonnage Aug.--15 per cent of tonnage Sept.--15 per cent of tonnage Oct.--15 per cent of tonnage
Alfalfa seed	Threshing	Sept.--15-30 50 per cent of crop Oct.--1-15 50 per cent of crop
Beans (mostly blackeye)	Hauling	July--all crops
	Bunching after cutting	Sept.--50 per cent of acreage
	(by hand with fork)	Oct.--50 per cent of acreage
	Threshing (by machinery) (50 per cent by seasonal labor)	October--all crop
Sugar beets	Threshing	April
	Hauling	May
	Typing and loading	September
Grain, harvest- ing	Harvesting	June--50 per cent of crop July--50 per cent of crop

(Table continued next page)



Table 2 continued.

Crop	Operation	Time of need
Field crops (cont'd)		
Grain, harvesting (cont'd)	Baling straw	August--all acreage
Grain hay	Mowing (75 per cent by seasonal labor)	May--one-third of acreage June--two-thirds of acreage
	Raking (75 per cent by seasonal labor)	May--one-third of acreage June--two-thirds of acreage
	Bunching (75 per cent by seasonal labor)	May--one-fourth of acreage June--three-fourths of acreage
	Baling	June-15-30 50 per cent of crop July-1-15 50 per cent of crop
Onions	Hand cultivating (3 times)	March) 15 per cent of acreage April) each month
	Hand weeding (once)	March--all acres
	Thinning	March--20 per cent of acreage April--80 per cent of acreage
	Picking up, grading, and sacking	Sept.--two-thirds of crop Oct.--one-third of crop
Potatoes	Cutting seed, spring crop (80 per cent of acreage)	Feb.--15-28 33 per cent of spring seed Mar.--1-31 66 per cent of spring seed
	fall crop (20 per cent of acreage.)	July-20-30 33 per cent of fall seed Aug.--1-20 66 per cent of fall seed
	Picking up and sacking	June-20-30 5 per cent of spring crop July-1-31 90 per cent of spring crop August--5 per cent of spring crop Nov.--50 per cent of fall crop Dec.--1-31 50 per cent of fall crop
	Grading on tables	Same time as picking up
Sugar beet seed	Hoeing	Oct.--15-31 50 per cent of acreage Nov.--1-15 50 per cent of acreage
	Clearing away by hand (after mowers)	July

(Table continued on next page)



Date	Description	Amount
1911	To Balance	100.00
1912	By Cash	50.00
1913	By Cash	25.00
1914	By Cash	15.00
1915	By Cash	10.00
1916	By Cash	5.00
1917	By Cash	5.00
1918	By Cash	5.00
1919	By Cash	5.00
1920	By Cash	5.00
1921	By Cash	5.00
1922	By Cash	5.00
1923	By Cash	5.00
1924	By Cash	5.00
1925	By Cash	5.00
1926	By Cash	5.00
1927	By Cash	5.00
1928	By Cash	5.00
1929	By Cash	5.00
1930	By Cash	5.00
1931	By Cash	5.00
1932	By Cash	5.00
1933	By Cash	5.00
1934	By Cash	5.00



Table continued

Crop	Operation	Time of need
Field crops (cont'd)		
Sugar beet seed (cont'd)	Threshing	July--50 per cent of crop Aug.--50 per cent of crop
Vegetable crops:		
Asparagus	Cutting and crating	
Melons, cantaloupes	Thinning and hoeing (once) (50 per cent by seasonal labor)	April--all acreage
Jap. melons	Replanting (50 per cent by seasonal labor)	April--all acreage
	Hoeing (three times) (50 per cent by seasonal labor)	May--twice June--once
	Picking cantaloupes and Japanese melons	August--one-half of crop Sept.--one-half of crop
	Picking Persians	September, October
watermelons	Planting (75 per cent by seasonal labor)	March 1-30--50 per cent of acreage April 1-20--50 per cent of acreage
	Capping	March per cent of acreage
	Hoeing and thinning (75 per cent by seasonal labor)	April--all acres covered May--all acres not covered
	Hoeing (75 per cent by seasonal labor)	May--all acres covered June--all acres not covered
	Picking	July--10 per cent of crop Aug.--50 per cent of crop Sept.--35 per cent of crop Oct.--5 per cent of crop
	Loading and hauling (66 per cent by seasonal labor)	same as picking
Spinach	Hoeing (twice)	December--all acreage January--all acreage
	Cut by hand with special forks	first cutting { Dec. 15-31--20 per cent of crop { Jan. 1-31--45 per cent of crop

(Table continued on next page)







Table 2 continued.

Crop	Operation	Time of need
Vegetable crops (cont'd)		
Spinach	Cut by hand with special forks (cont'd)	second (Feb. 1-28--14 per cent cutting ( of crop (Mar. 1-31--14 per cent ( of crop (Apr. 1-15--7 per cent ( of crop
Tomatoes	Transplanting to field	May 1-15--all acreage
	Replanting	May--all acreage
	Hoeing (twice)	June, July--all acres once
	Dusting (three times)	May, June, July--all acreage
	Picking	Aug.--15 per cent of crop Sept.--40 per cent of crop Oct.--30 per cent of crop Nov.--15 per cent of crop
Strawberries	Picking	March--10 per cent of crop April--35 per cent of crop May--30 per cent of crop June--25 per cent of crop
Other berries	Picking	May--5 per cent of crop June--78 per cent of crop July--16 per cent of crop
Orchard crops:		
Almonds	Knocking	July 20-30--10 per cent of crop Aug. 1-31--60 per cent of crop Sept. 1-31--30 per cent of crop
	Hulling by hand	July 20-30--10 per cent of crop Aug. 1-31--60 per cent of crop Sept. 1-31--30 per cent of crop
Apricots	Pruning (50 per cent by seasonal labor)	Nov., Dec., Jan.,--one-third of acreage each month
	Spraying	
	Thinning (with poles)	April 15-30--25 per cent of acreage
	(Heavy in 1935 -- none in 1936)	May 1-15--75 per cent of acre- age
	Picking	June 20-30--10 per cent of crop July 1-31--90 per cent of crop
	Washing trays and re- pairing	June 10-20--all
	Cutting for drying	July--all

(Table continued on next page)



Name	Address	City
John Doe	123 Main St	New York
Jane Smith	456 Elm St	Los Angeles
Robert Brown	789 Oak St	Chicago
Mary White	101 Pine St	San Francisco
David Green	202 Cedar St	Houston
Susan Black	303 Birch St	Phoenix
Michael Red	404 Spruce St	Portland
Elizabeth Blue	505 Willow St	Seattle
James Yellow	606 Ash St	Denver
Patricia Purple	707 Hickory St	Nashville
Christopher Grey	808 Sycamore St	San Antonio
Amanda Pink	909 Magnolia St	Dallas
Daniel Brown	1010 Dogwood St	Austin
Michelle Green	1111 Redwood St	Jacksonville
Kevin White	1212 Cypress St	Fort Lauderdale
Nicole Black	1313 Juniper St	Tampa
Brandon Red	1414 Fir St	Orlando
Stephanie Blue	1515 Palm St	Miami
Tyler Yellow	1616 Laurel St	Fort Myers
Hannah Purple	1717 Birch St	Sarasota
Nathan Grey	1818 Spruce St	Bradenton
Olivia Pink	1919 Willow St	Lakewood Ranch
Ethan Brown	2020 Dogwood St	Palmdale
Sophia Green	2121 Redwood St	Visalia
Liam White	2222 Cypress St	Hanford
Isabella Black	2323 Juniper St	Corcoran
Noah Red	2424 Fir St	Wasco
Aria Blue	2525 Palm St	Arvin
Caleb Yellow	2626 Laurel St	Lemoore
Mia Purple	2727 Birch St	Reedley
Elijah Grey	2828 Spruce St	Manteca
Charlotte Pink	2929 Willow St	Lodi
Benjamin Brown	3030 Dogwood St	Stockton
Abigail Green	3131 Redwood St	Tracy
Lucas White	3232 Cypress St	Manteca



Table 2 continued.

Crop	Operation	Time of need
Orchard crops (cont'd)		
Apricots (cont'd)	Spreading trays, handling boxes and scraping trays	July
Cherries	Picking	May 20-30--10 per cent of crop June 1-15--60 per cent of crop June 15-30--30 per cent of crop
	Sorting and loose packing	May 20-30 --10 per cent of crop June 1-15--60 per cent of crop June 15-30 --30 per cent of crop
Citrus, lemons	Picking *	Nov.--123,650 field boxes Dec.--162,140 field boxes Jan.--205,310 field boxes Feb.--150,336 field boxes Mar.--143,375 field boxes Apr.--191,835 field boxes May --83,955 field boxes June--43,500 field boxes July--20,120 field boxes Aug.--11,310 field boxes Sept.--8,091 field boxes Oct.--30,015 field boxes
oranges (navels and Valencias) and miscellaneous citrus fruits	Picking †	Nov.--1.2 per cent of crop Dec.--4.2 per cent of crop Jan.--13.0 per cent of crop Feb.--16.5 per cent of crop Mar.--19.8 per cent of crop Apr.--18.1 per cent of crop May --6.5 per cent of crop June--3.2 per cent of crop July--5.4 per cent of crop Aug.--3.3 per cent of crop Sept--4.5 per cent of crop Oct.--4.4 per cent of crop
grapefruit	Picking †	April--8 per cent of crop May--17 per cent of crop June--27 per cent of crop July--25 per cent of crop Aug.--14 per cent of crop Balance scattering and incon-sequential
Grapes	Pruning	Dec. 15-31--20 per cent of acre- age Jan. 1-30--40 per cent of acre- age Feb. 1-28--40 per cent of acre- age

(Table continued on next page)



<p>1915</p>	<p>1915</p>	<p>1915</p>
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Table 2 continued

Crop	Operation	Time of Need
Orchard crops (cont'd)		
Grapes (cont'd)	Picking	Aug. 15-30 -- 5 per cent of crop Sept. -- 30 per cent of crop Oct. -- 50 per cent of crop Nov. -- 15 per cent of crop
Olives	Picking	Nov. 1-30 -- 50 per cent of crop Dec. 1-31 -- 50 per cent of crop
Peaches, cling	Pruning (50 per cent by seasonal labor)	Jan.) 50 per cent of acreage Feb.) each month
	Thinning	May
	Picking	Aug. 15-31 -- 45 per cent of crop Sept. 1-20 -- 55 per cent of crop
freestone	Pruning (50 per cent by seasonal labor)	Nov. 15-30 -- one-sixth of acreage Dec. 1-31 -- one-third of acreage Jan. 1-31 -- one-third of acreage Feb. 1-15 -- one-sixth of acreage
	Thinning	May -- all acreage
	Picking	July -- 10 per cent of crop Aug. -- 50 per cent of crop Sept. -- 30 per cent of crop Oct. -- 10 per cent of crop
	Sorting and packing	(same time as picking)
Plums	Picking	July -- 75 per cent of crop Aug. -- 25 per cent of crop
Prunes	Picking up	Sept. 10-30 -- 60 per cent of crop Oct. 1-15 -- 40 per cent of crop
	Dipping and drying	(same time as picking up)
Walnuts	Harvesting and hulling by hand	Sept. -- 50 per cent of crop Oct. -- 50 per cent of crop

\* Distribution of lemon picking by months based on lemon "pick" for 1935 of the Queen Colony Fruit Exchange, Corona, which is estimated to be about 80 per cent of the county production.

† Orange picking by months distributed according to percentage shipped monthly during 1935. Field boxes estimated on basis of 750 field boxes of 48 lbs. for every car of 462 boxes of 80 pounds.

‡ Grapefruit picking by months is distributed according to percentage shipped each month in 1935. Field boxes estimated on basis of 750 field boxes for every car of 462 packed boxes.







TABLE 3

Seasonal Labor Needs -- Riverside County, excluding Palo Verde and Coachella Valleys -- by Months and Tasks

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
January	Spinach: hoeing cutting with special forks by hand	250 acres	1 acre	250	21	12
		112 tons	1,000 lbs in 6 hours	224 (of 6 hrs)	9	25 (for 9 days)
	Apricots: pruning	1,474 acres	0.2 acre	3,685†	21	176
	Citrus, lemons: picking oranges: picking	205,310 field boxes	23 boxes	8,927	20	447
		778,700 field boxes	60 boxes	12,979	20	649
	Grapes: pruning	600 acres	0.75 acre	800	21	38
	Peaches, cling : pruning free : pruning	555 acres	0.33 acre	833†	21	40
		346 acres	0.33 acre	519†	21	25
	Totals			28,217	21	1,344 man-months
February	Potatoes: cutting seed (12 sacks per acre)	6,876 sacks	20 sacks	344	11	31 (from 15th to 28th)
	Spinach: cutting (second cutting)	35 tons	1,000 pounds in 6 hours	70 (of 6 hrs)	3	25 (for 3 days)
	Citrus, lemons: picking oranges: picking	150,336 field boxes	22 boxes	6,834	22	311
		988,350 field boxes	60 boxes	16,473	22	749
	Grapes: pruning	600 acres	0.75 acre	800	23	35

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(Table continued on next page)





Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
February (cont'd)	Peaches, cling : pruning	555 acres	0.33 acre	833†	23	37
	free : pruning	173 acres	0.33 acre	260†	12	22 (from 1st to 15th)
	Totals			25,612	23	1,114 man-months
March	Onions: hand cultivation	225 acres	1.5 acre	225	25	9
	hand weeding	225 acres	1.0 acre	225	25	9
	thinning	45 acres	0.25 acre	180	25	8
	Potatoes, cutting seed (12 sacks per acre)	13,752 sacks	20 sacks	688	25	28
	Watermelons: planting with hoe	483 acres	5 acres	73†	25	3
	putting on paper caps	483 acres	3 acres	161	25	7
	Spinach: cutting (second cut- ting)	35 tons	1,000 pounds in 6 hours	70	3	25 (for 3 days)
	Strawberries: picking	(515 crates) (31 acres )	1½ crates	344 (of 4 hrs)	12	29†(from 15th to 31st)
	Citrus, lemons: picking	143,375 field boxes	31 boxes	4,625	23	201
	oranges: picking	1,086,020 field boxes	60 boxes	18,100	23	787
	Totals			24,691	25	988 man-months
April	Alfalfa hay: mowing	14,209 acres	10 acres	710†	25	29
	raking	14,209 acres	20 acres	355†	25	15
	shocking	14,209 acres	2½ acres in 5 hours	4,547 (of 5 hrs.)†	25	182
	hauling and baling	10,356 tons	3 tons	2,762†	25	111

(Table continued on next page)



General Information

No.	Description	Quantity		Value		Total
		Unit	Amount	Unit	Amount	
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Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
April (cont'd)	Sugar beets: thinning	121 acres	0.5 acre	242	25	10
	Onions, hand cultivating thinning	225 acres	1.5 acre	225	25	9
		180 acres	0.25 acre	760	25	31
	Melons: cantaloupes and Japanes melons, thinning and hoeing once replanting	250 acres	0.75 acre	166†	25	7
		250 acres	4 hours per acre	.55†	25	3
	Watermelons: planting with hoe  hoeing and thinning "covered" acreage	483 acres	5 acres	74†	17	5 (from 1st to 20th)
		483 acres	1 acre	362†	25	15
	Spinach; cutting (second cutting)	18 tons	1,000 pounds in 6 hours	36 (of 6 hrs.)	2	18 (for 2 days)
	Strawberries; picking	1,800 crates	1½ crates	1,200	25	48†
		31 acres		(of 4 hrs.)		
	Apricots; thinning (with poles) <sup>6</sup>	1,105	0.5 acre	2,210	12	184 (from 15th to 30th)
	Citrus, lemons; picking	191,835 field boxes	28 boxes	6,851	23	298
	oranges; picking	1,084,090 field boxes	60 boxes	18,068	23	786 <sup>9</sup>
	grapefruit; picking	24,686 field boxes	90 boxes	275	23	12
	Totals			38,898	25	1,556 man-months
May	Alfalfa hay; mowing raking shocking	14,209 acres	10 acres	711†	26	28
		14,209 acres	20 acres	356†	26	14
		14,209 acres	2½ acres in 5 hours	4,547† (of 5 hrs.)	26	175
	hauling and baling	12,945 tons	3 tons	3,452†	26	133

(Table continued on next page)





Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
May (cont'd)	Sugar beets: hoeing	121 acres	1.0 acre	121	12	10 (for 12 days)
	Grain hay: mowing	4,400 acres	10 acres	330†	26	13
	raking	4,400 acres	20 acres	165†	26	7
	bunching	3,250 acres	20 acres	122†	26	5
	Melons, cantaloupes and Japanese melons: hoeing twice	500 acres	2 acres	125†	26	5
	watermelons: hoeing and thinning (all uncovered)	483 acres	3 acres	120†	26	5
	hoeing, (all covered acres)	483 acres	3 acres	120†	26	5
	Tomatoes: transplanting to field	1,192 acres	1 acre	1,192	12	100 (from 1st to 15th)
	dusting	1,192 acres	4 acres (in 6 hours)	298 (of 6 hrs.)	26	12
	replanting	1,192 acres	10 acres	119	12	10 (from 15th to 30th)
	Strawberries: picking	1,545 crates 31 acres	1½ crates	1,030 (of 4 hrs.)	26	40 †
	Apricots: thinning with poles	3,315 acres	0.5 acre	6,630	13	510 (from 1st to 15th)
	Cherries: picking	75 tons	200 pounds	750	10	75 (from 20th to 30th)
	sorting and loose packing	75 tons	1,000 pounds	150	10	15
	Citrus, lemons: picking	83,955 field boxes	17 boxes	4,939	24	206

(Table continued on next page)



STATION	DATE	TIME	WIND DIRECTION	WIND SPEED (MPH)	WAVE HEIGHT (FT)	SEA STATE
1	1/1/61	0800	090	10	2	1
2	1/1/61	1200	090	12	3	2
3	1/1/61	1600	090	15	4	3
4	1/1/61	2000	090	18	5	4
5	1/2/61	0600	090	10	2	1
6	1/2/61	1000	090	12	3	2
7	1/2/61	1400	090	15	4	3
8	1/2/61	1800	090	18	5	4
9	1/3/61	0600	090	10	2	1
10	1/3/61	1000	090	12	3	2
11	1/3/61	1400	090	15	4	3
12	1/3/61	1800	090	18	5	4
13	1/4/61	0600	090	10	2	1
14	1/4/61	1000	090	12	3	2
15	1/4/61	1400	090	15	4	3
16	1/4/61	1800	090	18	5	4
17	1/5/61	0600	090	10	2	1
18	1/5/61	1000	090	12	3	2
19	1/5/61	1400	090	15	4	3
20	1/5/61	1800	090	18	5	4
21	1/6/61	0600	090	10	2	1
22	1/6/61	1000	090	12	3	2
23	1/6/61	1400	090	15	4	3
24	1/6/61	1800	090	18	5	4
25	1/7/61	0600	090	10	2	1
26	1/7/61	1000	090	12	3	2
27	1/7/61	1400	090	15	4	3
28	1/7/61	1800	090	18	5	4
29	1/8/61	0600	090	10	2	1
30	1/8/61	1000	090	12	3	2
31	1/8/61	1400	090	15	4	3
32	1/8/61	1800	090	18	5	4
33	1/9/61	0600	090	10	2	1
34	1/9/61	1000	090	12	3	2
35	1/9/61	1400	090	15	4	3
36	1/9/61	1800	090	18	5	4
37	1/10/61	0600	090	10	2	1
38	1/10/61	1000	090	12	3	2
39	1/10/61	1400	090	15	4	3
40	1/10/61	1800	090	18	5	4
41	1/11/61	0600	090	10	2	1
42	1/11/61	1000	090	12	3	2
43	1/11/61	1400	090	15	4	3
44	1/11/61	1800	090	18	5	4
45	1/12/61	0600	090	10	2	1
46	1/12/61	1000	090	12	3	2
47	1/12/61	1400	090	15	4	3
48	1/12/61	1800	090	18	5	4
49	1/13/61	0600	090	10	2	1
50	1/13/61	1000	090	12	3	2
51	1/13/61	1400	090	15	4	3
52	1/13/61	1800	090	18	5	4
53	1/14/61	0600	090	10	2	1
54	1/14/61	1000	090	12	3	2
55	1/14/61	1400	090	15	4	3
56	1/14/61	1800	090	18	5	4
57	1/15/61	0600	090	10	2	1
58	1/15/61	1000	090	12	3	2
59	1/15/61	1400	090	15	4	3
60	1/15/61	1800	090	18	5	4
61	1/16/61	0600	090	10	2	1
62	1/16/61	1000	090	12	3	2
63	1/16/61	1400	090	15	4	3
64	1/16/61	1800	090	18	5	4
65	1/17/61	0600	090	10	2	1
66	1/17/61	1000	090	12	3	2
67	1/17/61	1400	090	15	4	3
68	1/17/61	1800	090	18	5	4
69	1/18/61	0600	090	10	2	1
70	1/18/61	1000	090	12	3	2
71	1/18/61	1400	090	15	4	3
72	1/18/61	1800	090	18	5	4
73	1/19/61	0600	090	10	2	1
74	1/19/61	1000	090	12	3	2
75	1/19/61	1400	090	15	4	3
76	1/19/61	1800	090	18	5	4
77	1/20/61	0600	090	10	2	1
78	1/20/61	1000	090	12	3	2
79	1/20/61	1400	090	15	4	3
80	1/20/61	1800	090	18	5	4
81	1/21/61	0600	090	10	2	1
82	1/21/61	1000	090	12	3	2
83	1/21/61	1400	090	15	4	3
84	1/21/61	1800	090	18	5	4
85	1/22/61	0600	090	10	2	1
86	1/22/61	1000	090	12	3	2
87	1/22/61	1400	090	15	4	3
88	1/22/61	1800	090	18	5	4
89	1/23/61	0600	090	10	2	1
90	1/23/61	1000	090	12	3	2
91	1/23/61	1400	090	15	4	3
92	1/23/61	1800	090	18	5	4
93	1/24/61	0600	090	10	2	1
94	1/24/61	1000	090	12	3	2
95	1/24/61	1400	090	15	4	3
96	1/24/61	1800	090	18	5	4
97	1/25/61	0600	090	10	2	1
98	1/25/61	1000	090	12	3	2
99	1/25/61	1400	090	15	4	3
100	1/25/61	1800	090	18	5	4

Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
May (cont'd)	Citrus, oranges: picking	389,350 field boxes	50 boxes	7,787	24	325
	grapefruit: picking	52,458 field boxes	90 boxes	583	24	25
	Peaches: thinning &	2,147 acres	0.25 acre	8,588	26	331
	Totals			42,235	26	1,625 man-months
June	Alfalfa, mowing	18,945 acres	10 acres	947 †	26	37
	raking	18,945 acres	20 acres	474 †	26	19
	shocking	18,945 acres	2½ acres in 5 hours	6,064 † (of 5 hrs.)	26	234
	hauling and baling	14,670 tons	3 tons	3,912 †	26	151
	Grain; harvesting (with combine)	24,500 acres	6 acres	2,042 †	26	78
	Grain hay; mowing	8,600 acres	10 acres	645 †	13	50 (for 13 days)
	raking	8,600 acres	20 acres	323 †	15	22 (for 15 days)
	bunching	9,750 acres	20 acres	366 †	20	19 (for 19 days)
	baling	6,800 tons	4 tons	1,700	13	131 (from 15th to 30th)
	Potatoes: picking up and sacking	10,300 sacks	70 sacks	147	10	15 (from 20th to 30th)
	grading (mostly on tables)	10,300 sacks	100 sacks	103	10	11 (from 20th to 30th)
	Melons, cantaloupes and Japanese: hoeing	250 acres	2 acres	63 †	26	3
	watermelons: hoeing (all acres not covered)	483 acres	4 acres	90 †	26	4
	Tomatoes: hoeing	1,192 acres	1.5 acre	795	26	31

(Table continued on next page)



Item	Quantity	Unit	Price	Total
Wheat	1000	bu	1.25	1250.00
Barley	500	bu	1.00	500.00
Oats	200	bu	.75	150.00
Hay	100	tons	15.00	1500.00
Grain	300	bu	.80	240.00
Feed	150	tons	10.00	1500.00
Seed	50	bu	1.50	75.00
Manure	100	tons	5.00	500.00
Tools	10	sets	20.00	200.00
Repairs	5	days	40.00	200.00
Transport	100	miles	1.00	100.00
Insurance	100	days	1.00	100.00
Interest	100	days	1.00	100.00
Profit	100	days	1.00	100.00
Total				10000.00

Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
June (cont'd)	Tomatoes: dusting	1,192 acres	2.5 acres in 6 hours	477 (of 6 hrs)	26	19
	Youngberries, etc.: picking	40 acres	200- $\frac{1}{2}$ pt. baskets		26	//
	Strawberries: picking	1,290 crates 31 acres	1 $\frac{1}{2}$ crates	860	26	33 †
	Apricots: picking	2,106 tons	2,000 pounds	2,106	10	211 (from 20th to 30th)
	washing and repairing trays	98,400 trays	150 trays	656	10	66 (from 10th to 20th)
	Cherries: picking	450 tons	200 pounds	4,500	15	300** (from 1st to 15th)
	picking	225 tons	200 pounds	2,250	15	150 (from 15th to 30th)
	Citrus, lemons: picking	43,500 field boxes	10 boxes	4,350	24	182
	oranges: picking	191,680 field boxes	50 boxes	3,834	24	160
	grapefruit: picking	81,317 field boxes	90 boxes	904	24	38
	Totals			37,608	26	1,447 man-months
July	Alfalfa hay: mowing	18,945 acres	10 acres	947 †	26	37
	raking	18,945 acres	20 acres	474 †	26	19
	shocking	18,945 acres	2 $\frac{1}{2}$ acres in 5 hours	6,064 † (of 5 hrs)	26	234
	hauling and baling	14,670 tons	3 tons	3,912 †	26	151
	Beans: hoeing	1,271 acres	1.0 acre	1,271	26	49
	Grain: harvesting (by combine)	24,500 acres	6.0 acres	2,042	26	78
	Grain hay: baling	6,800 tons	4 tons	1,700	13	131 (from 1st to 15th)
	Sugar beet seed: clearing swath after mowers	410 acres	0.33 acre	1,230	21	60 (for 21 15 days)





Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
July (cont'd)	Sugar beets: threshing	325 tons	0.75 ton	467	12	40 (from 15th to 31st)
	Melons, watermelons: picking	680 tons	10 tons in 5 hours	68 (of 5 hrs)	13	6 (from 15th to 31st)
	loading and hauling	680 tons	5 tons	90†	13	7
	Potatoes: cutting seed for fall crop	1,728 sacks	20 sacks	87	10	9 (from 20th to 30th)
	picking up and sacking grading on tables	185,668 sacks	70 sacks	2,653	26	102
		185,668 sacks	100 sacks	1,857	26	72
	Tomatoes: hoeing, once dusting	1,192 acres	2.0 acre	596	26	23
		1,192 acres	1.0 in 6 hours	1,192 (of 6 hrs)	26	46
	Youngberries, etc.: picking	40 acres	200-½ pt. baskets		26	11
	Almonds: knocking	20 tons	225 pounds	178	10	18 (from 20th to 30th)
	hulling by hand	20 tons	65 pounds	616	10	62 (from 20th to 30th)
	Apricots: picking	18,962 tons	2,000 pounds	18,962	26	730
	cutting for drying (green weight)	15,740 tons	600 pounds	52,467	26	2,018
	other dry yard labor	15,740 tons	11 hours per green ton ††	17,314	26	666
	Citrus, lemons: picking	20,120 field boxes	10 boxes	2,012	24	84
	oranges: picking	323,460 field boxes	50 boxes	6,469	24	270





Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
July (cont'd)	Citrus, grapefruit; picking	77,145 field boxes	90 boxes	858	24	36
	Peaches, (freestone); picking	103 tons	1,500 pounds in 7 hours	138 (of 7 hrs.)	6	23 (for 6 days)
	sorting and packing	103 tons	2,300 pounds	90	6	15 (for 6 days)
	Plums: picking	185 tons	1,000 pounds	370	26	15
	Totals			124,124	26	4,774 man-months
August	Alfalfa hay; mowing	18,945 acres	10 acres	947†	25	38
	raking	18,945 acres	20 acres	474†	25	19
	shocking by hand	18,945 acres	2½ acres in 5 hours	6,064 (of 5 hrs.)†	25	243
	hauling and baling	14,670 tons	3 tons	3,912†	25	157
	Grain: baling straw		3 tons		25	
	Potatoes: cutting seed for fall crop	3,432 sacks	20 sacks	172	18	10 (from 1st to 20th)
	picking up and sacking	10,300 sacks	70 sacks	147	6	25 (for 1st week)
	grading	10,300 sacks	100 sacks	103	6	17 (for 1st week)
	Sugar beet seed: threshing	325 tons	0.75 ton	467	24	20
	Melons, cantaloupes and Jap melons: picking	396 tons	1 ton	396	25	16
	watermelons: picking	3,396 tons	10 tons in 5 hours	340 (of 5 hrs.)	25	14
	loading and hauling	3,396 tons	5 tons	454†	25	19
	Tomatoes: picking	945 tons	1 ton	945	25	38
	Almonds: knocking ††	120 tons	225 pounds	1,067	25	43

17.

(Table continued on next page)



No.	Name	Age	Sex	Occupation	Marital Status	Religion	Education	Income	Expenses	Savings	Notes
1	John Smith	35	M	Farmer	Married	Protestant	High School	\$1200	\$800	\$400	Good health
2	Mary Jones	28	F	Teacher	Single	Catholic	College	\$900	\$600	\$300	Widow
3	Robert Brown	42	M	Merchant	Married	Methodist	University	\$1500	\$1000	\$500	Widow
4	Elizabeth White	30	F	Homemaker	Married	Protestant	High School	\$1100	\$700	\$400	Widow
5	William Green	25	M	Student	Single	Baptist	College	\$700	\$400	\$300	Widow
6	Anna Miller	22	F	Student	Single	Protestant	College	\$600	\$300	\$300	Widow
7	James Wilson	38	M	Farmer	Married	Methodist	High School	\$1000	\$600	\$400	Widow
8	Sarah Davis	27	F	Homemaker	Married	Catholic	High School	\$900	\$500	\$400	Widow
9	Charles Taylor	33	M	Merchant	Married	Protestant	University	\$1300	\$800	\$500	Widow
10	Elizabeth Clark	29	F	Homemaker	Married	Methodist	High School	\$1100	\$700	\$400	Widow
11	Robert Lewis	40	M	Farmer	Married	Baptist	High School	\$1200	\$800	\$400	Widow
12	Mary Walker	26	F	Homemaker	Married	Protestant	High School	\$1000	\$600	\$400	Widow
13	William Hall	31	M	Farmer	Married	Methodist	High School	\$1100	\$700	\$400	Widow
14	Anna King	24	F	Homemaker	Married	Catholic	High School	\$900	\$500	\$400	Widow
15	James Scott	36	M	Merchant	Married	Protestant	University	\$1300	\$800	\$500	Widow
16	Elizabeth Adams	28	F	Homemaker	Married	Methodist	High School	\$1100	\$700	\$400	Widow
17	Robert Baker	41	M	Farmer	Married	Baptist	High School	\$1200	\$800	\$400	Widow
18	Mary Nelson	27	F	Homemaker	Married	Protestant	High School	\$1000	\$600	\$400	Widow
19	William Carter	32	M	Farmer	Married	Methodist	High School	\$1100	\$700	\$400	Widow
20	Anna Evans	25	F	Homemaker	Married	Catholic	High School	\$900	\$500	\$400	Widow
21	James Hill	37	M	Merchant	Married	Protestant	University	\$1300	\$800	\$500	Widow
22	Elizabeth Young	29	F	Homemaker	Married	Methodist	High School	\$1100	\$700	\$400	Widow
23	Robert King	40	M	Farmer	Married	Baptist	High School	\$1200	\$800	\$400	Widow
24	Mary Green	26	F	Homemaker	Married	Protestant	High School	\$1000	\$600	\$400	Widow
25	William Hall	31	M	Farmer	Married	Methodist	High School	\$1100	\$700	\$400	Widow
26	Anna King	24	F	Homemaker	Married	Catholic	High School	\$900	\$500	\$400	Widow
27	James Scott	36	M	Merchant	Married	Protestant	University	\$1300	\$800	\$500	Widow
28	Elizabeth Adams	28	F	Homemaker	Married	Methodist	High School	\$1100	\$700	\$400	Widow
29	Robert Baker	41	M	Farmer	Married	Baptist	High School	\$1200	\$800	\$400	Widow
30	Mary Nelson	27	F	Homemaker	Married	Protestant	High School	\$1000	\$600	\$400	Widow
31	William Carter	32	M	Farmer	Married	Methodist	High School	\$1100	\$700	\$400	Widow
32	Anna Evans	25	F	Homemaker	Married	Catholic	High School	\$900	\$500	\$400	Widow
33	James Hill	37	M	Merchant	Married	Protestant	University	\$1300	\$800	\$500	Widow
34	Elizabeth Young	29	F	Homemaker	Married	Methodist	High School	\$1100	\$700	\$400	Widow
35	Robert King	40	M	Farmer	Married	Baptist	High School	\$1200	\$800	\$400	Widow
36	Mary Green	26	F	Homemaker	Married	Protestant	High School	\$1000	\$600	\$400	Widow
37	William Hall	31	M	Farmer	Married	Methodist	High School	\$1100	\$700	\$400	Widow
38	Anna King	24	F	Homemaker	Married	Catholic	High School	\$900	\$500	\$400	Widow
39	James Scott	36	M	Merchant	Married	Protestant	University	\$1300	\$800	\$500	Widow
40	Elizabeth Adams	28	F	Homemaker	Married	Methodist	High School	\$1100	\$700	\$400	Widow
41	Robert Baker	41	M	Farmer	Married	Baptist	High School	\$1200	\$800	\$400	Widow
42	Mary Nelson	27	F	Homemaker	Married	Protestant	High School	\$1000	\$600	\$400	Widow
43	William Carter	32	M	Farmer	Married	Methodist	High School	\$1100	\$700	\$400	Widow
44	Anna Evans	25	F	Homemaker	Married	Catholic	High School	\$900	\$500	\$400	Widow
45	James Hill	37	M	Merchant	Married	Protestant	University	\$1300	\$800	\$500	Widow
46	Elizabeth Young	29	F	Homemaker	Married	Methodist	High School	\$1100	\$700	\$400	Widow
47	Robert King	40	M	Farmer	Married	Baptist	High School	\$1200	\$800	\$400	Widow
48	Mary Green	26	F	Homemaker	Married	Protestant	High School	\$1000	\$600	\$400	Widow
49	William Hall	31	M	Farmer	Married	Methodist	High School	\$1100	\$700	\$400	Widow
50	Anna King	24	F	Homemaker	Married	Catholic	High School	\$900	\$500	\$400	Widow

Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
August (cont'd)	Almonds; hulling by hand	120 tons	65 pounds	3,693	25	148
	Citrus, lemons: picking	11,310 field boxes	10 boxes	1,131	24	48
	oranges: picking	197,670 field boxes	50 boxes	3,954	24	165
	grapefruit: picking	43,200 field boxes	90 boxes	480	24	20
	Grapes: picking	75 tons	1 ton	75	12	7 (from 15th to 30th)
	Peaches cling: picking	1,203 tons	1 ton	1,203	13	93 (from 15th to 31st)
	freestone picking	518 tons	1,500 pounds in 7 hours	691 (of 7 hrs.)	25	28
	. sorting and packing	518 tons	2,300 pounds	451	25	18
	Plums; picking	62 tons	1,000 pounds	124	25	5
	Totals			27,290	25	1,092 man-months
September	Alfalfa hay; mowing	14,209 acres	10 acres	711†	26	28
	raking	14,209 acres	20 acres	356†	26	14
	shocking	14,209 acres	2½ acres in 5 hours	4,547 (of 5 hrs.)†	26	175
	hauling and baling	10,356 tons	3 tons	2,762†	26	107
	Alfalfa seed; threshing	925 acres	2 acres	463	12	39 (from 15th to 30th)
	Beans; bunching after cutter	635 acres	1 acre in 3 hours	635 (of 3 hrs.)	26	25
	Sugar beets; topping and loading	1,417 tons	5 tons	284	26	11
	Onions; picking up, grading and sacking	44,500 sacks	40 sacks	1,113	26	43



No.	Name	Age	Sex	Religion	Marital Status	Occupation
1	John Doe	25	M	Protestant	Single	Teacher
2	Jane Smith	30	F	Catholic	Married	Nurse
3	Robert Johnson	45	M	Methodist	Married	Engineer
4	Mary White	28	F	Baptist	Single	Librarian
5	William Brown	35	M	Presbyterian	Married	Farmer
6	Elizabeth Green	22	F	Anglican	Single	Student
7	James Black	50	M	Quaker	Married	Merchant
8	Sarah Grey	38	F	Unitarian	Married	Homemaker
9	Thomas Hall	42	M	Episcopalian	Married	Doctor
10	Anna King	27	F	Presbyterian	Single	Writer
11	Charles Lee	33	M	Methodist	Married	Businessman
12	Grace Miller	24	F	Catholic	Single	Artist
13	Henry Wilson	48	M	Protestant	Married	Lawyer
14	Isabella Young	31	F	Anglican	Married	Musician
15	George Taylor	55	M	Quaker	Married	Retired
16	Louise Adams	29	F	Unitarian	Single	Translator
17	Frank Baker	40	M	Episcopalian	Married	Architect
18	Emily Clark	26	F	Presbyterian	Single	Journalist
19	Samuel Evans	36	M	Methodist	Married	Scientist
20	Charlotte Foster	23	F	Catholic	Single	Designer
21	Benjamin Hall	52	M	Protestant	Married	Historian
22	Victoria King	34	F	Anglican	Married	Composer
23	Richard Lee	44	M	Quaker	Married	Philosopher
24	Frances Miller	28	F	Unitarian	Single	Activist
25	Edward Wilson	39	M	Episcopalian	Married	Politician
26	Harriet Young	21	F	Presbyterian	Single	Researcher
27	Albert Taylor	47	M	Methodist	Married	Entrepreneur
28	Joseph Adams	32	M	Catholic	Married	Engineer
29	Rebecca Baker	25	F	Protestant	Single	Teacher
30	Samuel Clark	41	M	Anglican	Married	Writer
31	Elizabeth Evans	37	F	Quaker	Married	Homemaker
32	William Foster	51	M	Unitarian	Married	Merchant
33	Anna Green	29	F	Episcopalian	Single	Librarian
34	Thomas Hall	43	M	Presbyterian	Married	Farmer
35	Isabella King	27	F	Methodist	Single	Student
36	George Lee	35	M	Catholic	Married	Businessman
37	Louise Miller	24	F	Protestant	Single	Artist
38	Henry Wilson	49	M	Anglican	Married	Doctor
39	Isabella Young	31	F	Quaker	Married	Musician
40	George Taylor	56	M	Unitarian	Married	Retired
41	Louise Adams	30	F	Episcopalian	Single	Translator
42	Frank Baker	41	M	Presbyterian	Married	Architect
43	Emily Clark	27	F	Methodist	Single	Journalist
44	Samuel Evans	38	M	Catholic	Married	Scientist
45	Charlotte Foster	24	F	Protestant	Single	Designer
46	Benjamin Hall	53	M	Anglican	Married	Historian
47	Victoria King	35	F	Quaker	Married	Composer
48	Richard Lee	45	M	Unitarian	Married	Philosopher
49	Frances Miller	29	F	Episcopalian	Single	Activist
50	Edward Wilson	40	M	Presbyterian	Married	Politician

Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
September (cont'd)	Melons, cantaloupes and Jap melons: picking	396 tons	1 ton	396	26	16
	Persians; picking	650 tons	4 tons	163	26	7
	watermelons: picking	2,377 tons	10 tons in 5 hours	238	26	9
	loading and hauling	2,377 tons	5 tons	(of 5 hrs.) 318†	26	13
	Tomatoes: picking	2,520 tons	1 ton	2,520	26	97
	Almonds, knocking ††	60 tons	225 pounds	533	26	21
	hulling by hand	60 tons	65 pounds	1,846	26	71
	Citrus, lemons: picking	8,091 field boxes	10 boxes	809	24	34 44
	oranges; picking	209,550 field boxes	50 boxes	5,391	24	225
	Grapes; picking	440 tons	1 ton	440	26	17
	Peaches, cling; picking	1,470 tons	1 ton	1,470	20	74 (from 1st to 20th)
	freestone: picking	311 tons	1,500 pounds in 7 hours	415	26	16
	sorting and packing	311 tons	2,300 pounds	(of 7 hrs.) 271	26	11
	Prunes: picking up	3,261 tons	1,250 pounds	5,218	20	261 (from 10th to 30th)
	dipping and drying	3,261 tons	1½ tons green wt. 44	2,174	20	109 (from 10th to 30th)
	Walnuts: harvesting and hulling by hand	1,137 tons	200 pounds	11,370	26	438
	Totals			44,443	26	1,710 man-months
October	Alfalfa hay: mowing	14,209 acres	10 acres	711†	25	29
	raking	14,209 acres	20 acres	356†	25	15

(Table continued on next page)





Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
October (cont'd)	Alfalfa hay; shocking	14,209 acres	2½ acres in 5 hours	4,547 (of 5 hrs.)	25	182
	hauling and baling	8,630 tons	3 tons	2,100†	25	84
	Alfalfa seed; threshing	925 acres	2 acres per man-day	463	12	39 (from 1st to 15th)
	Beans: bunching with forks after cutter	635 acres	1 acre in 3 hours	635 (of 3 hrs.)	25	26
	threshing all crop	15,700 sacks	20 sacks	471†	25	19
	Onions; picking up, grading and sacking	22,250 sacks	40 sacks	556	25	23
	Sugar beets for seed; hoeing	205 acres	0.33 acre	615	12	51 (from 15th to 31st)
	Melons, Persians; picking	650 tons	4 tons	163	25	7
	watermelons: picking	340 tons	10 tons in 5 hours	34 (of 5 hrs.)	12	3 (for 12 days)
	loading and hauling	340 tons	5 tons	46†	12	4 (for 12 days)
	Tomatoes: picking	1,890 tons	1 ton	1,890	25	76
	Citrus, lemons: picking	30,015 field boxes	13 boxes	2,309	24	97
	oranges: picking	263,560 field boxes	50 boxes	5,271	24	220
	Grapes: picking	734 tons	1 ton	734	25	30
	Peaches, freestone: picking	104 tons	1,500 pounds in 7 hours	139 (of 7 hrs.)	13	11 (from 1st to 15th)
	sorting and packing	104 tons	2,300 pounds	91	13	7 (from 1st to 15th) 30

(Table continued on next page)



Category	Sub-category	Value 1	Value 2	Value 3	Value 4	Value 5
Group A	Sub-category A1	100	100	100	100	100
	Sub-category A2	100	100	100	100	100
	Sub-category A3	100	100	100	100	100
	Sub-category A4	100	100	100	100	100
	Sub-category A5	100	100	100	100	100
	Sub-category A6	100	100	100	100	100
Group B	Sub-category B1	200	200	200	200	200
	Sub-category B2	200	200	200	200	200
	Sub-category B3	200	200	200	200	200
	Sub-category B4	200	200	200	200	200
	Sub-category B5	200	200	200	200	200
	Sub-category B6	200	200	200	200	200
Group C	Sub-category C1	300	300	300	300	300
	Sub-category C2	300	300	300	300	300
	Sub-category C3	300	300	300	300	300
	Sub-category C4	300	300	300	300	300
	Sub-category C5	300	300	300	300	300
	Sub-category C6	300	300	300	300	300
Group D	Sub-category D1	400	400	400	400	400
	Sub-category D2	400	400	400	400	400
	Sub-category D3	400	400	400	400	400
	Sub-category D4	400	400	400	400	400
	Sub-category D5	400	400	400	400	400
	Sub-category D6	400	400	400	400	400
Group E	Sub-category E1	500	500	500	500	500
	Sub-category E2	500	500	500	500	500
	Sub-category E3	500	500	500	500	500
	Sub-category E4	500	500	500	500	500
	Sub-category E5	500	500	500	500	500
	Sub-category E6	500	500	500	500	500
Group F	Sub-category F1	600	600	600	600	600
	Sub-category F2	600	600	600	600	600
	Sub-category F3	600	600	600	600	600
	Sub-category F4	600	600	600	600	600
	Sub-category F5	600	600	600	600	600
	Sub-category F6	600	600	600	600	600
Group G	Sub-category G1	700	700	700	700	700
	Sub-category G2	700	700	700	700	700
	Sub-category G3	700	700	700	700	700
	Sub-category G4	700	700	700	700	700
	Sub-category G5	700	700	700	700	700
	Sub-category G6	700	700	700	700	700
Group H	Sub-category H1	800	800	800	800	800
	Sub-category H2	800	800	800	800	800
	Sub-category H3	800	800	800	800	800
	Sub-category H4	800	800	800	800	800
	Sub-category H5	800	800	800	800	800
	Sub-category H6	800	800	800	800	800
Group I	Sub-category I1	900	900	900	900	900
	Sub-category I2	900	900	900	900	900
	Sub-category I3	900	900	900	900	900
	Sub-category I4	900	900	900	900	900
	Sub-category I5	900	900	900	900	900
	Sub-category I6	900	900	900	900	900
Group J	Sub-category J1	1000	1000	1000	1000	1000
	Sub-category J2	1000	1000	1000	1000	1000
	Sub-category J3	1000	1000	1000	1000	1000
	Sub-category J4	1000	1000	1000	1000	1000
	Sub-category J5	1000	1000	1000	1000	1000
	Sub-category J6	1000	1000	1000	1000	1000

Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
October (cont'd)	Prunes: picking up (green weight)	2,174 tons	1,250 pounds	3,479	15	232 (from 1st to 15th)
	dipping and drying	2,174 tons	1½ tons green weight <sup>RA</sup>	1,450	15	97 (from 1st to 15th)
	Walnuts: harvesting and hulling by hand	1,137 tons	200 pounds	11,370	25	455
	Totals			37,430	25	1,498 man-months
November	Potatoes: picking up and sacking	25,784 sacks	70 sacks	369	25	15
	grading	25,784 sacks	100 sacks	258	25	11
	Sugar beets for seed: hoeing	205 acres	0.33 acre	615	12	51 (from 1st to 15th)
	Tomatoes: picking	945 tons	1 ton	945	12	79 (from 1st to 15th)
	Apricots: pruning	1,474 acres	0.2 acre	3,685 <sup>+</sup>	25	148
	Citrus, lemons: picking	123,650 field boxes	13 boxes	9,512	23	414
	oranges: picking	71,880 field boxes	50 boxes	1,438	23	63 <sup>66</sup> / <sub>99</sub>
	Grapes: picking	220 tons	1 ton	220	12	19 (from 1st to 15th)
	Olives: picking	88 tons	300 pounds	587	25	23
	Peaches, freestone: pruning	173 acres	0.33 acre	260 <sup>+</sup>	12	22 (from 15th to 30th)
	Totals			17,889	25	716 man-months
December	Potatoes: picking up and sacking	25,784 sacks	70 sacks	369	24	16
	grading	25,784 sacks	100 sacks	258	24	11

21.

(Table continued on next page)



No.	Name	Age	Sex	Profession	Religion	Marital Status	Date of Birth	Date of Death	Cause of Death	Burial Place	Remarks
1	John Smith	25	M	Farmer	Methodist	Married	1850	1875	Heart Disease	St. John's Church	
2	Mary Jones	30	F	Homemaker	Methodist	Married	1845	1875	Smallpox	St. John's Church	
3	Robert Brown	20	M	Student	Methodist	Single	1855	1875	Typhoid	St. John's Church	
4	Elizabeth White	40	F	Teacher	Methodist	Married	1835	1875	Stroke	St. John's Church	
5	William Black	28	M	Blacksmith	Methodist	Married	1847	1875	Pneumonia	St. John's Church	
6	Anna Green	35	F	Homemaker	Methodist	Married	1840	1875	Scarlet Fever	St. John's Church	
7	James Hall	22	M	Student	Methodist	Single	1853	1875	Dysentery	St. John's Church	
8	Sarah Lee	38	F	Homemaker	Methodist	Married	1837	1875	Smallpox	St. John's Church	
9	Thomas King	27	M	Farmer	Methodist	Married	1848	1875	Heart Disease	St. John's Church	
10	Elizabeth King	32	F	Homemaker	Methodist	Married	1843	1875	Smallpox	St. John's Church	
11	John King	24	M	Student	Methodist	Single	1851	1875	Typhoid	St. John's Church	
12	Mary King	29	F	Homemaker	Methodist	Married	1846	1875	Smallpox	St. John's Church	
13	Robert King	21	M	Student	Methodist	Single	1854	1875	Dysentery	St. John's Church	
14	Anna King	36	F	Homemaker	Methodist	Married	1839	1875	Smallpox	St. John's Church	
15	James King	26	M	Farmer	Methodist	Married	1849	1875	Heart Disease	St. John's Church	
16	Elizabeth King	31	F	Homemaker	Methodist	Married	1844	1875	Smallpox	St. John's Church	
17	John King	23	M	Student	Methodist	Single	1852	1875	Typhoid	St. John's Church	
18	Mary King	28	F	Homemaker	Methodist	Married	1847	1875	Smallpox	St. John's Church	
19	Robert King	20	M	Student	Methodist	Single	1855	1875	Dysentery	St. John's Church	
20	Anna King	34	F	Homemaker	Methodist	Married	1841	1875	Smallpox	St. John's Church	
21	James King	25	M	Farmer	Methodist	Married	1850	1875	Heart Disease	St. John's Church	
22	Elizabeth King	30	F	Homemaker	Methodist	Married	1845	1875	Smallpox	St. John's Church	
23	John King	22	M	Student	Methodist	Single	1853	1875	Typhoid	St. John's Church	
24	Mary King	27	F	Homemaker	Methodist	Married	1848	1875	Smallpox	St. John's Church	
25	Robert King	19	M	Student	Methodist	Single	1856	1875	Dysentery	St. John's Church	
26	Anna King	33	F	Homemaker	Methodist	Married	1842	1875	Smallpox	St. John's Church	
27	James King	24	M	Farmer	Methodist	Married	1851	1875	Heart Disease	St. John's Church	
28	Elizabeth King	29	F	Homemaker	Methodist	Married	1846	1875	Smallpox	St. John's Church	
29	John King	21	M	Student	Methodist	Single	1854	1875	Typhoid	St. John's Church	
30	Mary King	26	F	Homemaker	Methodist	Married	1849	1875	Smallpox	St. John's Church	
31	Robert King	18	M	Student	Methodist	Single	1857	1875	Dysentery	St. John's Church	
32	Anna King	32	F	Homemaker	Methodist	Married	1843	1875	Smallpox	St. John's Church	
33	James King	23	M	Farmer	Methodist	Married	1852	1875	Heart Disease	St. John's Church	
34	Elizabeth King	28	F	Homemaker	Methodist	Married	1847	1875	Smallpox	St. John's Church	
35	John King	20	M	Student	Methodist	Single	1855	1875	Typhoid	St. John's Church	
36	Mary King	25	F	Homemaker	Methodist	Married	1850	1875	Smallpox	St. John's Church	
37	Robert King	17	M	Student	Methodist	Single	1858	1875	Dysentery	St. John's Church	
38	Anna King	31	F	Homemaker	Methodist	Married	1844	1875	Smallpox	St. John's Church	
39	James King	22	M	Farmer	Methodist	Married	1853	1875	Heart Disease	St. John's Church	
40	Elizabeth King	27	F	Homemaker	Methodist	Married	1848	1875	Smallpox	St. John's Church	
41	John King	19	M	Student	Methodist	Single	1856	1875	Typhoid	St. John's Church	
42	Mary King	24	F	Homemaker	Methodist	Married	1851	1875	Smallpox	St. John's Church	
43	Robert King	16	M	Student	Methodist	Single	1859	1875	Dysentery	St. John's Church	
44	Anna King	30	F	Homemaker	Methodist	Married	1845	1875	Smallpox	St. John's Church	
45	James King	21	M	Farmer	Methodist	Married	1854	1875	Heart Disease	St. John's Church	
46	Elizabeth King	26	F	Homemaker	Methodist	Married	1849	1875	Smallpox	St. John's Church	
47	John King	18	M	Student	Methodist	Single	1857	1875	Typhoid	St. John's Church	
48	Mary King	23	F	Homemaker	Methodist	Married	1852	1875	Smallpox	St. John's Church	
49	Robert King	15	M	Student	Methodist	Single	1860	1875	Dysentery	St. John's Church	
50	Anna King	29	F	Homemaker	Methodist	Married	1846	1875	Smallpox	St. John's Church	
51	James King	20	M	Farmer	Methodist	Married	1855	1875	Heart Disease	St. John's Church	
52	Elizabeth King	25	F	Homemaker	Methodist	Married	1850	1875	Smallpox	St. John's Church	
53	John King	17	M	Student	Methodist	Single	1858	1875	Typhoid	St. John's Church	
54	Mary King	22	F	Homemaker	Methodist	Married	1853	1875	Smallpox	St. John's Church	
55	Robert King	14	M	Student	Methodist	Single	1861	1875	Dysentery	St. John's Church	
56	Anna King	28	F	Homemaker	Methodist	Married	1847	1875	Smallpox	St. John's Church	
57	James King	19	M	Farmer	Methodist	Married	1856	1875	Heart Disease	St. John's Church	
58	Elizabeth King	24	F	Homemaker	Methodist	Married	1851	1875	Smallpox	St. John's Church	
59	John King	16	M	Student	Methodist	Single	1859	1875	Typhoid	St. John's Church	
60	Mary King	21	F	Homemaker	Methodist	Married	1854	1875	Smallpox	St. John's Church	
61	Robert King	13	M	Student	Methodist	Single	1862	1875	Dysentery	St. John's Church	
62	Anna King	27	F	Homemaker	Methodist	Married	1848	1875	Smallpox	St. John's Church	
63	James King	18	M	Farmer	Methodist	Married	1857	1875	Heart Disease	St. John's Church	
64	Elizabeth King	23	F	Homemaker	Methodist	Married	1852	1875	Smallpox	St. John's Church	
65	John King	15	M	Student	Methodist	Single	1860	1875	Typhoid	St. John's Church	
66	Mary King	20	F	Homemaker	Methodist	Married	1855	1875	Smallpox	St. John's Church	
67	Robert King	12	M	Student	Methodist	Single	1863	1875	Dysentery	St. John's Church	
68	Anna King	26	F	Homemaker	Methodist	Married	1849	1875	Smallpox	St. John's Church	
69	James King	17	M	Farmer	Methodist	Married	1858	1875	Heart Disease	St. John's Church	
70	Elizabeth King	22	F	Homemaker	Methodist	Married	1853	1875	Smallpox	St. John's Church	
71	John King	14	M	Student	Methodist	Single	1861	1875	Typhoid	St. John's Church	
72	Mary King	19	F	Homemaker	Methodist	Married	1856	1875	Smallpox	St. John's Church	
73	Robert King	11	M	Student	Methodist	Single	1864	1875	Dysentery	St. John's Church	
74	Anna King	25	F	Homemaker	Methodist	Married	1850	1875	Smallpox	St. John's Church	
75	James King	16	M	Farmer	Methodist	Married	1859	1875	Heart Disease	St. John's Church	
76	Elizabeth King	21	F	Homemaker	Methodist	Married	1854	1875	Smallpox	St. John's Church	
77	John King	13	M	Student	Methodist	Single	1862	1875	Typhoid	St. John's Church	
78	Mary King	18	F	Homemaker	Methodist	Married	1857	1875	Smallpox	St. John's Church	
79	Robert King	10	M	Student	Methodist	Single	1865	1875	Dysentery	St. John's Church	
80	Anna King	24	F	Homemaker	Methodist	Married	1851	1875	Smallpox	St. John's Church	
81	James King	15	M	Farmer	Methodist	Married	1860	1875	Heart Disease	St. John's Church	
82	Elizabeth King	20	F	Homemaker	Methodist	Married	1855	1875	Smallpox	St. John's Church	
83	John King	12	M	Student	Methodist	Single	1863	1875	Typhoid	St. John's Church	
84	Mary King	17	F	Homemaker	Methodist	Married	1858	1875	Smallpox	St. John's Church	
85	Robert King	9	M	Student	Methodist	Single	1866	1875	Dysentery	St. John's Church	
86	Anna King	23	F	Homemaker	Methodist	Married	1852	1875	Smallpox	St. John's Church	
87	James King	14	M	Farmer	Methodist	Married	1861	1875	Heart Disease	St. John's Church	
88	Elizabeth King	19	F	Homemaker	Methodist	Married	1856	1875	Smallpox	St. John's Church	
89	John King	11	M	Student	Methodist	Single	1864	1875	Typhoid	St. John's Church	
90	Mary King	16	F	Homemaker	Methodist	Married	1859	1875	Smallpox	St. John's Church	
91	Robert King	8	M	Student	Methodist	Single	1867	1875	Dysentery	St. John's Church	
92	Anna King	22	F	Homemaker	Methodist	Married	1853	1875	Smallpox	St. John's Church	
93	James King	13	M	Farmer	Methodist	Married	1862	1875	Heart Disease	St. John's Church	
94	Elizabeth King	18	F	Homemaker	Methodist	Married	1857	1875	Smallpox	St. John's Church	
95	John King	10	M	Student	Methodist	Single	1865	1875	Typhoid	St. John's Church	
96	Mary King	15	F	Homemaker	Methodist	Married	1860	1875	Smallpox	St. John's Church	
97	Robert King	7	M	Student	Methodist	Single	1868	1875	Dysentery	St. John's Church	
98	Anna King	21	F	Homemaker	Methodist	Married	1854	1875	Smallpox	St. John's Church	
99	James King	12	M	Farmer	Methodist	Married	1863	1875	Heart Disease	St. John's Church	
100	Elizabeth King	17	F	Homemaker	Methodist	Married	1858	1875	Smallpox	St. John's Church	

Table 3 continued.

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers
December (cont'd)	Spinach: hoeing	250 acres	0.6 acre	416	24	18
	first cutting	50 tons	1,000 pounds in 6 hours	100 (of 6 hrs.)	4	25 (for 4 days)
	Apricots; pruning	1,474 acres	0.2 acre	3,685†	24	154
	Citrus, lemons: picking	162,140 field boxes	16 boxes	10,134	24	423
	oranges: picking	251,580 field boxes	60 boxes	4,193	24	175
	Grapes; pruning	300 acres	0.75 acre	400	12	34 (from 15th to 31st)
	Olives: picking	88 tons	300 pounds	587	24	25
	Peaches, freestone: pruning	346 acres	0.33 acre	519†	24	22
	Totals			20,661	24	861 man-months

\* Monthly basis unless otherwise noted.

† Estimated portion of work done by seasonal laborers.

‡ Strawberry picking may require 60 to 90 pickers continuously during March, April, and May.

§ Thinning varies greatly, and may be omitted entirely when set of fruit is light. Figures are for normal set of fruit.

¶ Peak orange shipments in Riverside County are about 28,500 packed boxes (equalling about 48,500 field boxes) per day. This would require about 810 pickers.

|| Youngberry picking may require 4 pickers per acre at the peak of production.

\*\* Cherry picking during peak on heavy crop may require more workers than indicated for a short period.

†† Data on apricot drying from University of California Agr. Exp. Sta. Bul. 388.

‡‡ Figures based on a normal production of about 200 tons of almonds -- 1935 crop was very light.

§§ Citrus pickers during the lightest picking season are more or less "steady" employees although they may work on a day or piece work basis.

¶¶ Data on prune drying from University of California Agr. Exp. Sta. Bul. 388.





TABLE 4

Summary of Seasonal Labor Needs by Months  
Western Riverside County, excluding Coachella and Palo Verde Valleys

Month	Required man-days of seasonal labor	Available work days	Required man-months of seasonal labor
January	28,217	21	1,344
February	25,612	23	1,114
March	24,691	25	988
April	38,898	25	1,556
May	42,235	26	1,625
June	37,608	26	1,447
July	124,124	26	4,774
August	27,290	25	1,092
September	44,443	26	1,710
October	37,430	25	1,498
November	17,889	25	716
December	20,661	24	861
Total	468,948	--	18,719



REPORT OF THE COMMISSIONER OF THE GENERAL LAND OFFICE

Section	Tract	Acres	Value	Remarks
1	1,110	1,110	111,000	
2	1,110	1,110	111,000	
3	1,110	1,110	111,000	
4	1,110	1,110	111,000	
5	1,110	1,110	111,000	
6	1,110	1,110	111,000	
7	1,110	1,110	111,000	
8	1,110	1,110	111,000	
9	1,110	1,110	111,000	
10	1,110	1,110	111,000	
11	1,110	1,110	111,000	
12	1,110	1,110	111,000	
13	1,110	1,110	111,000	
14	1,110	1,110	111,000	
15	1,110	1,110	111,000	
16	1,110	1,110	111,000	
17	1,110	1,110	111,000	
18	1,110	1,110	111,000	
19	1,110	1,110	111,000	
20	1,110	1,110	111,000	
21	1,110	1,110	111,000	
22	1,110	1,110	111,000	
23	1,110	1,110	111,000	
24	1,110	1,110	111,000	
25	1,110	1,110	111,000	
26	1,110	1,110	111,000	
27	1,110	1,110	111,000	
28	1,110	1,110	111,000	
29	1,110	1,110	111,000	
30	1,110	1,110	111,000	
31	1,110	1,110	111,000	
32	1,110	1,110	111,000	
33	1,110	1,110	111,000	
34	1,110	1,110	111,000	
35	1,110	1,110	111,000	
36	1,110	1,110	111,000	
37	1,110	1,110	111,000	
38	1,110	1,110	111,000	
39	1,110	1,110	111,000	
40	1,110	1,110	111,000	
41	1,110	1,110	111,000	
42	1,110	1,110	111,000	
43	1,110	1,110	111,000	
44	1,110	1,110	111,000	
45	1,110	1,110	111,000	
46	1,110	1,110	111,000	
47	1,110	1,110	111,000	
48	1,110	1,110	111,000	
49	1,110	1,110	111,000	
50	1,110	1,110	111,000	
51	1,110	1,110	111,000	
52	1,110	1,110	111,000	
53	1,110	1,110	111,000	
54	1,110	1,110	111,000	
55	1,110	1,110	111,000	
56	1,110	1,110	111,000	
57	1,110	1,110	111,000	
58	1,110	1,110	111,000	
59	1,110	1,110	111,000	
60	1,110	1,110	111,000	
61	1,110	1,110	111,000	
62	1,110	1,110	111,000	
63	1,110	1,110	111,000	
64	1,110	1,110	111,000	
65	1,110	1,110	111,000	
66	1,110	1,110	111,000	
67	1,110	1,110	111,000	
68	1,110	1,110	111,000	
69	1,110	1,110	111,000	
70	1,110	1,110	111,000	
71	1,110	1,110	111,000	
72	1,110	1,110	111,000	
73	1,110	1,110	111,000	
74	1,110	1,110	111,000	
75	1,110	1,110	111,000	
76	1,110	1,110	111,000	
77	1,110	1,110	111,000	
78	1,110	1,110	111,000	
79	1,110	1,110	111,000	
80	1,110	1,110	111,000	
81	1,110	1,110	111,000	
82	1,110	1,110	111,000	
83	1,110	1,110	111,000	
84	1,110	1,110	111,000	
85	1,110	1,110	111,000	
86	1,110	1,110	111,000	
87	1,110	1,110	111,000	
88	1,110	1,110	111,000	
89	1,110	1,110	111,000	
90	1,110	1,110	111,000	
91	1,110	1,110	111,000	
92	1,110	1,110	111,000	
93	1,110	1,110	111,000	
94	1,110	1,110	111,000	
95	1,110	1,110	111,000	
96	1,110	1,110	111,000	
97	1,110	1,110	111,000	
98	1,110	1,110	111,000	
99	1,110	1,110	111,000	
100	1,110	1,110	111,000	

## Riverside County -- Coachella Valley

Brief Description of the Area.-- Coachella Valley is located in the south-central part of Riverside County in southern California. It extends in a southeasterly direction about 60 miles from San Geronio Pass to the Salton Sea, and is hemmed in by mountains on the north, east and west and the Salton Sea on the south. Of the total area in the valley, only a small portion is farmed. This consists of land reclaimed from the desert, and irrigated by water pumped from deep wells. It covers a district about 20 miles in length, and 3 or 4 miles in width, contiguous to the towns of Indio, Coachella, Thermal, and Mecca, located in the southern end of the valley, a short distance north of Salton Sea. In some places the farms are scattered, and separated by areas of unreclaimed desert. The topography is quite flat, with a gentle slope to the south and east. The lands are mostly below sea level, and range in elevation from a few feet above to about 200 feet below. Rainfall is light and so uncertain that no dependence is placed upon it, irrigation being relied upon entirely for all crops. The summers are very hot and dry, and the winters mild with little frost. A considerable part of the area is used for the more tender truck crops such as string beans, tomatoes, squash, etc., which, owing to the mild winter climate can be matured here when few other districts can compete in the market.

Figures from the Agricultural Commissioner at Riverside indicate the following acreages for the 1935 season:

	<u>Acreage</u>
Field crops	3,135
Vegetable crops	3,297
Orchard and vineyard bearing	4,724
Orchard and vineyard nonbearing	<u>3,087</u>
Total	14,243

A variety of soils is represented, belonging to four different series. The predominating soil textures are sand, fine sand, and loam, although some large areas of clays occur, especially in the lower or southern end of the valley. Crops are grown principally on the lighter types. The soils are generally 6 feet or more in depth.

Crops, Acreages, and Production.-- The basis used in calculating occasional or seasonal need for labor in addition to that furnished by farm operators and regularly employed workers appears as table 1.



the wild water clinic can be secured here when the climate is mild.

1. The first of these is the fact that the majority of the population of the United States is now living in urban areas. This is a result of the process of urbanization, which has been going on since the beginning of the 20th century. The process of urbanization is the movement of people from rural areas to urban areas. This is done for a variety of reasons, including the search for better living conditions, the desire for education, and the need for employment. The process of urbanization has led to the growth of large cities and the decline of small towns. This has had a significant impact on the way we live and work. The second of these factors is the fact that the majority of the population of the United States is now living in the South and West. This is a result of the process of migration, which has been going on since the beginning of the 20th century. The process of migration is the movement of people from one part of the country to another. This is done for a variety of reasons, including the search for better living conditions, the desire for education, and the need for employment. The process of migration has led to the growth of the South and West and the decline of the Midwest. This has had a significant impact on the way we live and work. The third of these factors is the fact that the majority of the population of the United States is now living in the Northeast. This is a result of the process of migration, which has been going on since the beginning of the 20th century. The process of migration is the movement of people from one part of the country to another. This is done for a variety of reasons, including the search for better living conditions, the desire for education, and the need for employment. The process of migration has led to the growth of the Northeast and the decline of the South and West. This has had a significant impact on the way we live and work.

TABLE 1

Basis \* for Calculating Seasonal Labor Requirements -- Coachella Valley

Crops	Acreage	Production
Field crops:		
Cotton	1,650	1,700 bales = 2,380,000 pounds seed cotton
		1,215 tons seed
Hay, alfalfa, (90 per cent baled)	900	4,950
Onions†	440†	108,000 sacks, average 50 pounds
Potatoes (sweet)	145	9,660 sacks, average 100 pounds
Vegetable crops:		
Beans (green)	spring 207 fall 650	Spring 217 tons) Fall 684 tons) 901 tons
Carrots	250	50,700 crates
Cantaloupes‡	308‡	616 tons
Corn (green)	507	73,515 lugs of 3 dozen ears
Lettuce (none in 1936)	300	17,280 crates
Peas	400	200 tons
Tomatoes	409	2,903 tons
Vegetables (other)	266	--
Fruit crops:		
Citrus, grapefruit; bearing	1,767	341 cars = 157,542 packed boxes = 262,570 field boxes
nonbearing	675	--
tangerine; bearing	94	15 cars = 6,930 packed boxes = 554,400 pounds
nonbearing	57	--
Valencias; nonbearing	96	--
Dates; bearing	1,215	6,407,426 pounds
nonbearing	1,660	--
Figs; bearing	15	11 tons
nonbearing	10	--
Grapes--Thompson; bearing	1,179	1,130½ tons
nonbearing	589	--
Malaga; bearing	454	589 tons

\* Acreage and production figures for 1935 furnished by office of A. E. Bottel, Agricultural Commissioner, Riverside County.

† Onion acreage ranges from 400 to 800 acres in different years.

‡ Cantaloupe acreage is usually 150 acres or less.





Operations Requiring Use of Seasonal Labor and Times of Need.-- Farm operations requiring the use of seasonal or occasional labor for the various crops raised in the Coachella Valley of Riverside County, are indicated in table 2. This tabulation does not include the employing of shed workers needed to wash, pack, and prepare various commodities for shipping and marketing.

TABLE 2

Operations Requiring Use of Seasonal Labor and Times of Needs by Crops  
Coachella Valley

Crop	Operation	Time of need
Field crops:		
Cotton	Chopping Picking	May Aug.--15 per cent of crop Sept.--20 per cent of crop Oct.--20 per cent of crop Nov.--20 per cent of crop Dec.--15 per cent of crop Jan.--5 per cent of crop Feb.--5 per cent of crop
Hay, alfalfa	Baling (90 per cent of tonnage) (66 per cent by seasonal labor)	Mar.--15-31 4 per cent of tonnage baled Apr. to Nov., inclusive--12 per cent of tonnage each month
Onions, (Bermuda)	Planting in field  Weeding (twice)	Oct. 25-31--5 per cent of acreage Nov. 1-30--75 per cent of acreage Dec. 1-15--20 per cent of acreage  February--all acreage March--all acreage
Potatoes (sweet).	Use of seasonal labor inconsequential and hence ignored.	
Vegetable crops:		
Beans, green (spring crop)	Hoing Staking Picking	March--all acreage Merch--all acreage April 20-30--25 per cent of crop May 1-31--75 per cent of crop
Beans, green (fall crop)	Staking Picking	October--all acreage Nov. 1-30--50 per cent of crop Dec. 1-15--50 per cent of crop
Carrots	Wheel hoeing (once) Weeding (once)  Pulling, tying in bunches and putting in field crates	October--all acreage Oct. 15-31--all acreage  Feb.--28 per cent of crop Mar.--42 per cent of crop Apr.--24 per cent of crop (balance scattered and inconsequential)

(Table continued on next page)



The following information was obtained from the records of the  
 Department of the Interior, Bureau of Land Management, on the  
 subject of the land owned by the United States in the  
 State of California, and is being furnished to you for your  
 information.

LAND OWNED BY THE UNITED STATES IN THE STATE OF CALIFORNIA

Section	Township	Range
Section 1, Township 12N, Range 10E, Meridian 1S, contains 360 acres of land owned by the United States.	Township 12N, Range 10E, Meridian 1S.	Range 10E, Meridian 1S.
Section 2, Township 12N, Range 10E, Meridian 1S, contains 360 acres of land owned by the United States.	Township 12N, Range 10E, Meridian 1S.	Range 10E, Meridian 1S.
Section 3, Township 12N, Range 10E, Meridian 1S, contains 360 acres of land owned by the United States.	Township 12N, Range 10E, Meridian 1S.	Range 10E, Meridian 1S.
Section 4, Township 12N, Range 10E, Meridian 1S, contains 360 acres of land owned by the United States.	Township 12N, Range 10E, Meridian 1S.	Range 10E, Meridian 1S.
Section 5, Township 12N, Range 10E, Meridian 1S, contains 360 acres of land owned by the United States.	Township 12N, Range 10E, Meridian 1S.	Range 10E, Meridian 1S.
Section 6, Township 12N, Range 10E, Meridian 1S, contains 360 acres of land owned by the United States.	Township 12N, Range 10E, Meridian 1S.	Range 10E, Meridian 1S.
Section 7, Township 12N, Range 10E, Meridian 1S, contains 360 acres of land owned by the United States.	Township 12N, Range 10E, Meridian 1S.	Range 10E, Meridian 1S.

Table 2 continued.

Crop	Operation	Time of need
Vegetable crops (cont'd)		
Cantaloupes	Picking	June--60 per cent of crop July--40 per cent of crop
Corn (green) (Seasonal labor only on larger acreages, about 50 per cent of acreage)	Thinning and hoeing	March
	Suckering (twice)	March--all acreage April--all acreage
	Dusting	April
	Picking (20 per cent by seasonal labor)	May
Lettuce -- District apparently discontinuing production -- use of seasonal labor inconsequential and hence ignored.		
Peas	Picking	Nov.--25 per cent of crop Dec.--35 per cent of crop Jan.--30 per cent of crop Feb.--10 per cent of crop March
Tomatoes	Setting sloping stakes and attaching wire paper for weather protection	December--all acreage
	Hoeing (twice)	January--all acreage March--all acreage
	Remove paper, pull up stakes and wire and set in vertical posi- tion	February--all acreage
	Pruning (3 times)	February, March--on 50 per cent of acreage each month
	Tying (3 or 4 times)	March, April--two times in all acreage
	Picking (50 per cent by seasonal labor)	April--6 per cent of crop May--45 per cent of crop June--47 per cent of crop (balance scattered and inconse- quential)
Orchard crops?		
Grapefruit	Pruning (50 per cent of acreage)	Dec., Jan., Feb., Mar.--25 per cent each month
	Picking	Nov.--20 per cent of crop Dec.--20 per cent of crop Jan.--20 per cent of crop Feb.--20 per cent of crop Mar.--20 per cent of crop

(Table continued on next page)



Date	Time	Location
1944	10:00	New York
1944	11:00	New York
1944	12:00	New York
1944	13:00	New York
1944	14:00	New York
1944	15:00	New York
1944	16:00	New York
1944	17:00	New York
1944	18:00	New York
1944	19:00	New York
1944	20:00	New York
1944	21:00	New York
1944	22:00	New York
1944	23:00	New York
1944	00:00	New York
1944	01:00	New York
1944	02:00	New York
1944	03:00	New York
1944	04:00	New York
1944	05:00	New York
1944	06:00	New York
1944	07:00	New York
1944	08:00	New York
1944	09:00	New York
1944	10:00	New York
1944	11:00	New York
1944	12:00	New York
1944	13:00	New York
1944	14:00	New York
1944	15:00	New York

Table 2 continued.

Crop	Operation	Time of need
Vegetable crops (cont'd)		
Tangerines	Picking (50 per cent by seasonal labor)	Nov. 20-30--25 per cent of crop Dec. 1-31--75 per cent of crop
Dates	Pollinating (50 per cent by seasonal labor)	Feb. 15-28--25 per cent of job Mar. 1-31--50 per cent of job Apr. 1-15--25 per cent of job
	Picking	Sept. 15-31--20 per cent of crop Oct.--40 per cent of crop Nov.--30 per cent of crop Dec. 1-15--10 per cent of crop
Figs -- Use of seasonal labor inconsequential and hence ignored.		
Grapes	Pruning	Dec., Jan., Feb.--one-third of acreage each month
	Picking	June--all Thompson Seedless July--all Malagas -- 8 days



<p>1. The first part of the report is a general statement of the facts of the case.</p>	<p>2. The second part of the report is a statement of the evidence.</p>	<p>3. The third part of the report is a statement of the conclusions.</p>
<p>4. The fourth part of the report is a statement of the recommendations.</p>	<p>5. The fifth part of the report is a statement of the findings.</p>	<p>6. The sixth part of the report is a statement of the results.</p>
<p>7. The seventh part of the report is a statement of the conclusions.</p>	<p>8. The eighth part of the report is a statement of the findings.</p>	<p>9. The ninth part of the report is a statement of the results.</p>
<p>10. The tenth part of the report is a statement of the conclusions.</p>	<p>11. The eleventh part of the report is a statement of the findings.</p>	<p>12. The twelfth part of the report is a statement of the results.</p>
<p>13. The thirteenth part of the report is a statement of the conclusions.</p>	<p>14. The fourteenth part of the report is a statement of the findings.</p>	<p>15. The fifteenth part of the report is a statement of the results.</p>

TABLE 3

## Seasonal Labor Needs -- Coachella Valley -- by Months and Tasks

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
January	Cotton: Picking	119,000 pounds	200 pounds	595	25	24
	Carrots: Harvesting sometimes starts about the 15th					
	Peas: Picking	60 tons	200 pounds	600	25	24
	Tomatoes: Hoeing	409 acres	0.25 acre	1,636	25	66
	Grapefruit: Pruning	220 acres	0.5 acre	440	25	18
	Picking	52,514 boxes	100 boxes	526	25	21
	Grapes: Pruning	544 acres	0.5 acre	1,088	25	44
	Totals			4,885	25	196 man-months
February	Cotton: Picking	119,000 pounds	200 pounds	595	25	24
	Onions: Weeding	440 acres	0.3 acre	1,320	25	53
	Carrots: Pulling, tying in bunches and putting in crates	14,196 crates	10 crates	1,420	25	57
	Peas: Picking	20 tons	200 pounds	200	25	8
	Tomatoes: Remove paper protection and set stakes vertically	400 acres	0.1 acre	4,000	25	160
	Pruning	600 acres	0.5 acre	1,200	25	48
	Grapefruit: Pruning	220 acres	0.5 acre	440	25	18
	Picking	52,514 boxes	100 field boxes	526	25	21
	Dates: Pollinating	1,215 acres	†	303	13	24 (from 15th to 28th)
	Grapes: Pruning	544 acres	0.5 acre	1,088	25	44
	Totals			11,092	25	444 man-months
March	Alfalfa: Baling	178 tons	5 tons	24 ‡	8	3
	Onions: Weeding	440 acres	0.5 acre	880	26	34
	Beans (string): Hoeing	207 acres	1 acre	207	26	8
	Staking	207 acres	0.2 acre	1,035	26	39

(Table continued on next page.)





Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers *
March (cont'd)	Carrots: Pulling, tying in bunches and putting in crates	21,298 crates	10 crates	2,130	26	82
	Corn: Thinning and hoeing	507 acres	1 acre	250 †	26	10
	Suckering	507 acres	1 acre	250	26	10
	Tomatoes: Pruning	600 acres	0.5 acre	1,200	26	45
	Tying (two times)	800 acres	10 man-days per acre	8,000	26	308
	Grapefruit: Picking	52,514 boxes	100 field boxes	526	26	21
	Pruning	220 acres	0.5 acre	440	26	17
	Dates: Pollinating	1,215 acres	-- †	608	26	25
	Totals			15,550	26	598 man-months
April	Alfalfa (hay): Baling	535 tons	5 tons	72 †	26	3
	Onions: Harvesting	21,600 sacks of 50 pounds	25 sacks	864	6	144 (from 25th to 31st)
	Beans (string): Picking 25 per cent of spring crop	54 tons	200 pounds	540	6	90 (from 25th to 30th)
	Carrots: Pulling, tying in bunches, and putting in crates	12,168 crates	10 crates	1,217	26	47
	Corn: Suckering (all acreage)	507 acres	1 acre	250 †	26	10
	Dusting (all acreage) by hand	507 acres	1 acre	250 †	26	10
	Tomatoes: Tying	800 acres	20 man-days per acre	16,000	26	616
	Picking	174 tons	600 pounds	290 †	26	12
	Dates: Pollinating	1,215 acres	†	303	13	24 (from 1st to 15th)
	Totals			19,786	26	761 man-months
	Cotton: Chopping	1,650 acres	2.0 acres	825	26	32
May	Alfalfa (hay): Baling	535 tons	5 tons	72 †	26	3
	Cantaloupes (sometimes a few picked after the 15th)					

(Table continued on next page.)



<p>1. Name of the person or organization</p> <p>2. Address</p> <p>3. City</p> <p>4. State</p> <p>5. Zip</p>	<p>6. Date of birth</p> <p>7. Sex</p> <p>8. Race</p> <p>9. Religion</p> <p>10. Education</p>	<p>11. Occupation</p> <p>12. Income</p> <p>13. Assets</p> <p>14. Liabilities</p> <p>15. Net Worth</p>	<p>16. Marital Status</p> <p>17. Number of children</p> <p>18. Number of siblings</p> <p>19. Number of parents</p> <p>20. Number of grandparents</p>	<p>21. Date of death</p> <p>22. Cause of death</p> <p>23. Place of death</p> <p>24. Burial place</p> <p>25. Date of burial</p>	<p>26. Name of the person or organization</p> <p>27. Address</p> <p>28. City</p> <p>29. State</p> <p>30. Zip</p>
<p>John Doe</p> <p>123 Main St</p> <p>New York</p> <p>NY</p> <p>10001</p>	<p>1950-01-01</p> <p>M</p> <p>W</p> <p>C</p> <p>High School</p>	<p>Engineer</p> <p>\$50,000</p> <p>\$100,000</p> <p>\$50,000</p> <p>\$100,000</p>	<p>Married</p> <p>2</p> <p>1</p> <p>1</p> <p>1</p>	<p>2020-01-01</p> <p>Heart Disease</p> <p>New York</p> <p>St. John's</p> <p>2020-01-01</p>	<p>John Doe</p> <p>123 Main St</p> <p>New York</p> <p>NY</p> <p>10001</p>
<p>Jane Doe</p> <p>456 Main St</p> <p>New York</p> <p>NY</p> <p>10001</p>	<p>1955-01-01</p> <p>F</p> <p>W</p> <p>C</p> <p>High School</p>	<p>Teacher</p> <p>\$40,000</p> <p>\$80,000</p> <p>\$40,000</p> <p>\$80,000</p>	<p>Married</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>2020-01-01</p> <p>Heart Disease</p> <p>New York</p> <p>St. John's</p> <p>2020-01-01</p>	<p>Jane Doe</p> <p>456 Main St</p> <p>New York</p> <p>NY</p> <p>10001</p>
<p>John Doe</p> <p>123 Main St</p> <p>New York</p> <p>NY</p> <p>10001</p>	<p>1950-01-01</p> <p>M</p> <p>W</p> <p>C</p> <p>High School</p>	<p>Engineer</p> <p>\$50,000</p> <p>\$100,000</p> <p>\$50,000</p> <p>\$100,000</p>	<p>Married</p> <p>2</p> <p>1</p> <p>1</p> <p>1</p>	<p>2020-01-01</p> <p>Heart Disease</p> <p>New York</p> <p>St. John's</p> <p>2020-01-01</p>	<p>John Doe</p> <p>123 Main St</p> <p>New York</p> <p>NY</p> <p>10001</p>

Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers*
May (cont'd)	Onions: Harvesting	86,400 sacks of 50 pounds	25 sacks	3,456	26	133
	Beans (string): Picking	163 tons	200 pounds	1,630	26	63
	Corn (green): Picking	73,515 lugs	75 lugs	196†	26	8
	Tomatoes: Picking	1,306 tons	600 pounds	2,180†	26	84
	Totals			8,359	26	322 man-months
June	Alfalfa (hay): Baling	535 tons	5 tons	72†	26	3
	Cantaloupes: Picking	370 tons	1 ton	370	26	15
	Tomatoes: Picking	1,364 tons	600 pounds	2,274†	26	88
	Grapes: Picking and packing (all Thompson)	1,130½ tons	1,000 pounds	2,261	26	87
	Totals			4,977	26	192 man-months
July	Alfalfa (hay): Baling	535 tons	5 tons	72†	26	3
	Cantaloupes: Picking	246 tons	1 ton	246	10	25 (from 1st to 10th)
	Grapes: Picking (Malagas)	589 tons	1,000 pounds	1,178	8	183
August	Totals			1,496	26	58 man-months
	Cotton: Picking	357,000 pounds	250 pounds	1,428	18	80 (from 7th to 31st)
	Alfalfa (hay): Baling	535 tons	5 tons	72†	26	3
September	Totals			1,500	26	58 man-months
	Cotton: Picking	476,000 pounds	250 pounds	1,904	26	74
	Alfalfa (hay): Baling	535 tons	5 tons	72†	26	3
	Dates: Picking	1,922,220 pounds	330 pounds	5,825	13	448 (from 15th to 31st)
October	Totals			7,801	26	300 man-months
	Cotton: Picking	476,000 pounds	250 pounds	1,904	26	74
	Alfalfa (hay): Baling	535 tons	5 tons	72†	26	3
	Onions: Planting	22 acres	0.14 acre	154	6	26 (from 25th to 31st)
	Beans (green): Staking (fall crop)	650 acres	0.2 acre	3,250	26	125
	Carrots: Wheel hoeing	250 acres	0.25 acre	1,000	13	77 (from 1st to 15th)
	Weeding:	250 acres	1 acre	250	13	20 (from 15th to 31st)

(Table continued on next page.)



DATE	DESCRIPTION	AMOUNT	BALANCE	CASH	TOTAL
1951	BANK OF AMERICA	100.00	100.00		100.00
1951	BANK OF AMERICA	200.00	300.00		300.00
1951	BANK OF AMERICA	300.00	600.00		600.00
1951	BANK OF AMERICA	400.00	1000.00		1000.00
1951	BANK OF AMERICA	500.00	1500.00		1500.00
1951	BANK OF AMERICA	600.00	2100.00		2100.00
1951	BANK OF AMERICA	700.00	2800.00		2800.00
1951	BANK OF AMERICA	800.00	3600.00		3600.00
1951	BANK OF AMERICA	900.00	4500.00		4500.00
1951	BANK OF AMERICA	1000.00	5500.00		5500.00
1951	BANK OF AMERICA	1100.00	6600.00		6600.00
1951	BANK OF AMERICA	1200.00	7800.00		7800.00
1951	BANK OF AMERICA	1300.00	9100.00		9100.00
1951	BANK OF AMERICA	1400.00	10500.00		10500.00
1951	BANK OF AMERICA	1500.00	12000.00		12000.00
1951	BANK OF AMERICA	1600.00	13600.00		13600.00

Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number or workers*
October (cont'd)	Dates: Picking	3,844,440 pounds	330 pounds	11,650	26	448
	Totals			18,280	26	703 man-months
November	Cotton: Picking	476,000 pounds	225 pounds	2,116	26	82
	Alfalfa (hay): Baling	535 tons	5 tons	72†	26	3
	Onions: Planting in field	330 acres	0.14 acre	2,310	26	89
	Beans (string): Picking	342 tons	250 pounds	2,736	26	106
	Peas: Picking	50 tons	200 pounds	500	26	20
	Grapefruit: Picking	52,514 boxes	100 field boxes	526	26	21
	Tangerines: Picking	138,600 pounds	1,500 pounds	47†	10	5 (from 20th to 30th)
	Dates: Picking	1,922,229 pounds	330 pounds	5,825	26	224
	Totals			14,132	26	544 man-months
December	Cotton: Picking	357,000 pounds	200 pounds	1,785	25	72
	Onions: Planting	88 acres	0.14 acre	616	13	48 (from 1st to 15th)
	Beans: Picking	342 tons	250 pounds	2,736	13	211 (from 1st to 15th)
	Peas: Picking	70 tons	200 pounds	700	25	28 ‡
	Tomatoes: Set sloping stakes and paper weather protection	409 acres	0.2 acre	2,045	13	158
	Grapefruit: Picking	52,514 boxes	100 field boxes	526	25	21
	Pruning	220 acres	0.5 acre	440	25	18
	Tangerines: Picking	415,800 pounds	1,500 pounds	139†	25	6
	Dates: Picking	640,743 pounds	330 pounds	1,942	13	150 (from 1st to 15th)
	Grapes: Pruning	544 acres	0.5 acre	1,088	25	44
	Totals			12,017	25	481 man-months

\*On a monthly basis unless noted.

†Date pollinating requires about 2 man-days per acre for the season February 15 to April 15, of which about 50 per cent is done by seasonal workers.

‡Estimated portion of job done by seasonal workers.

§During peak of pea harvest, at least one picker per acre is needed.





TABLE 4

Summary of Seasonal Labor Needs by Months  
Coachella Valley

Month	Required man-days of seasonal labor	Available work days	Required man-months of seasonal labor
January	4,885	25	196
February	11,092	25	444
March	15,550	26	598
April	19,786	26	761
May	8,359	26	322
June	4,977	26	192
July	1,496	26	58
August	1,500	26	58
September	7,801	26	300
October	18,280	26	703
November	14,132	26	544
December	12,017	25	481
Total	119,875	--	4,657

It will be noticed from table 4, that the need for seasonal labor is small in Coachella Valley during the hot summer months from June to September. But after about September 15, however, the demand increases rapidly due largely to date harvest, and work on fall vegetable plantings and cotton picking. This continues to about the end of the year. January is somewhat slack, as fall harvests are mostly finished, but the need for labor increases again rapidly as work on spring crops develop, reaching a peak along in April or May with the harvest of onions, string beans, carrots, and work on tomatoes.



# STATE OF NEW YORK IN SENATE January 10, 1901 REPORT OF THE COMMISSIONERS OF THE LAND OFFICE

Year	Area	Value	Remarks
1891	100	100.00	
1892	100	100.00	
1893	100	100.00	
1894	100	100.00	
1895	100	100.00	
1896	100	100.00	
1897	100	100.00	
1898	100	100.00	
1899	100	100.00	
1900	100	100.00	
1901	100	100.00	
1902	100	100.00	
1903	100	100.00	
1904	100	100.00	
1905	100	100.00	
1906	100	100.00	
1907	100	100.00	
1908	100	100.00	
1909	100	100.00	
1910	100	100.00	
1911	100	100.00	
1912	100	100.00	
1913	100	100.00	
1914	100	100.00	
1915	100	100.00	
1916	100	100.00	
1917	100	100.00	
1918	100	100.00	
1919	100	100.00	
1920	100	100.00	
1921	100	100.00	
1922	100	100.00	
1923	100	100.00	
1924	100	100.00	
1925	100	100.00	
1926	100	100.00	
1927	100	100.00	
1928	100	100.00	
1929	100	100.00	
1930	100	100.00	
1931	100	100.00	
1932	100	100.00	
1933	100	100.00	
1934	100	100.00	
1935	100	100.00	
1936	100	100.00	
1937	100	100.00	
1938	100	100.00	
1939	100	100.00	
1940	100	100.00	
1941	100	100.00	
1942	100	100.00	
1943	100	100.00	
1944	100	100.00	
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1950	100	100.00	
1951	100	100.00	
1952	100	100.00	
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1954	100	100.00	
1955	100	100.00	
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1970	100	100.00	
1971	100	100.00	
1972	100	100.00	
1973	100	100.00	
1974	100	100.00	
1975	100	100.00	
1976	100	100.00	
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2014	100	100.00	
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2021	100	100.00	
2022	100	100.00	
2023	100	100.00	
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2025	100	100.00	
2026	100	100.00	
2027	100	100.00	
2028	100	100.00	
2029	100	100.00	
2030	100	100.00	
2031	100	100.00	
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2034	100	100.00	
2035	100	100.00	
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2045	100	100.00	
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2072	100	100.00	
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2074	100	100.00	
2075	100	100.00	
2076	100	100.00	
2077	100	100.00	
2078	100	100.00	
2079	100	100.00	
2080	100	100.00	
2081	100	100.00	
2082	100	100.00	
2083	100	100.00	
2084	100	100.00	
2085	100	100.00	
2086	100	100.00	
2087	100	100.00	
2088	100	100.00	
2089	100	100.00	
2090	100	100.00	
2091	100	100.00	
2092	100	100.00	
2093	100	100.00	
2094	100	100.00	
2095	100	100.00	
2096	100	100.00	
2097	100	100.00	
2098	100	100.00	
2099	100	100.00	
2100	100	100.00	

The following table shows the number of acres of land owned by the State of New York, and the value of the same, for each year from 1891 to 1901. The land is classified into three classes: (1) land owned by the State, (2) land owned by the people, and (3) land owned by the United States. The value of the land is given in dollars and cents.

## Seasonal Labor Needs for California Crops

## Riverside County -- Palo Verde Valley

Brief Description of the Area.-- Palo Verde Valley consists of 88,693 acres of partly reclaimed bottom lands along the west side of the Colorado River and is situated in the extreme eastern corner of the county. All the cropped land requires irrigation, in that the average annual rainfall is only about 4 inches. Of the total acreage in the valley about 25,000 was cropped in 1935, the crops consisting principally of cotton, alfalfa (hay and seed), wheat, and grain sorghums. A little barley was grown, a considerable acreage of sudan grass for seed, and about 200 acres are in pecans of several years' growth. The agricultural areas are contiguous to the towns of Blythe, Neighbors, and Ripley.

The soils of the valley are varied, and range from sand to clay. The different textures are scattered in relatively small patches generally over the whole district.

Crops, Acreages, and Production.-- The basis used in calculating occasional or seasonal need for labor in addition to that furnished by farm operators and regularly employed workers appears as table 1.

TABLE 1

Basis for Calculating Seasonal Labor Requirements -- Palo Verde Valley

Crops	Acreage *	Production *
Field crops:		
Alfalfa for hay only	5,500	22,000 tons hay
hay and seed	3,300	4,400 tons hay
		355.57 tons seed
Cotton, 1935	8,095	5,823 bales
		2,599 tons seed
Flax	200	4,000 bushels
Grain, wheat and barley	2,389	1,622 tons
Sorghums	2,971	2,317.38 tons
Sudan grass for seed	1,653	495 tons seed
Vegetable crops:		
Melons, Honeydew	30	3,360 crates
Lettuce, bearing	80	3,600 crates, Dec., 1935
nonbearing	224	for 1936 harvest
Orchard crops:		
Pecans, bearing	160	30,000 pounds
nonbearing	40	--

\* Acreage and production from office of A. E. Bottel, Agricultural Commissioner, Riverside County.

Operations Requiring Use of Seasonal Labor and Times of Need.-- Farm operations requiring the use of seasonal or occasional labor for the various crops raised in the Palo Verde Valley are indicated in table 2. This tabulation does not include the employing of shed workers needed to wash, pack, and prepare various commodities for shipping and marketing.



The first of the various methods, and the most common, is the use of the "rule of three". This rule is based on the fact that the ratio of the number of items to the number of groups is constant. For example, if there are 10 items in 2 groups, then there must be 20 items in 4 groups. This rule is useful for finding the number of items in a group when the number of groups is known, or vice versa.

The second method is the "method of averages". This method involves finding the average number of items per group, and then multiplying this average by the number of groups to find the total number of items.

The third method is the "method of differences". This method involves finding the difference between the number of items in one group and the number of items in another group, and then using this difference to find the number of items in the third group.

Group 1		Group 2	
10	20	20	40
20	40	40	80
30	60	60	120
40	80	80	160
50	100	100	200
60	120	120	240
70	140	140	280
80	160	160	320
90	180	180	360
100	200	200	400

The fourth method is the "method of ratios". This method involves finding the ratio of the number of items in one group to the number of items in another group, and then using this ratio to find the number of items in the third group.

## Operations Requiring Use of Seasonal Labor and Times of Needs by Crops -- Palo Verde Valley

Crops	Operation	Time of need
Field crops: Alfalfa (hay)	Baling (80 per cent of crop) (60 per cent by seasonal labor)	Mar.--10 per cent of tonnage baled Apr.--20 per cent of tonnage baled May--20 per cent of tonnage baled June--20 per cent of tonnage baled July--10 per cent of tonnage baled Aug.--10 per cent of tonnage baled Sept.--10 per cent of tonnage baled
	Threshing for seed (80 per cent by seasonal labor)	Aug.--one-third of crop) Sept.--one-third of crop) Oct.--one-third of crop)
Cotton	Chopping	May--50 per cent of acreage June--50 per cent of acreage
	Hoeing	June--50 per cent of acreage July--50 per cent of acreage
	Picking	Sept.--10 per cent of crop Oct.--30 per cent of crop Nov.--40 per cent of crop Dec.--15 per cent of crop Jan.--5 per cent of crop
Flax	(Use of seasonal labor ignored)	inconsequential and hence ignored)
Grain (wheat and barley)	Threshing (80 per cent by seasonal labor)	May--50 per cent of crop June--50 per cent of crop
Sorghums	Cutting off heads by hand and throwing in piles	Oct.--40 per cent of acreage Nov.--60 per cent of acreage
	Threshing (80 per cent by seasonal labor)	Oct.--20 per cent of crop Nov.--40 per cent of crop Dec.--40 per cent of crop

(Table continued on next page)





Table 2 continued.

Crops	Operation	Time of need
Sudan grass for seed	(District discontinuing production, hence ignored.)	
Vegetable crops:		
Lettuce	Thinning	Oct.--170 acres Dec.--130 acres
	Hoeing	Nov.--170 acres Feb.--130 acres
	Cutting (early crop)	Dec. 13-31--2,000 crates Jan. 1-31--10,000 crates
	(late crop)	Mar. 1-25--5,500 crates
Melons, honeydew*	Hoeing and thinning	August--all acreage
	Hoeing	August--all acreage
	Hoeing and turning vines	August--all acreage
	Picking	Oct. 23-31--50 per cent of crop Nov. 1-8--50 per cent of crop
Orchard crops:		
Pecan nuts	(Use of seasonal labor inconsequential, hence ignored.)	

\* About 200 acres melons have been planted for harvest in June and July, 1936.




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 the Bureau of Land Management.

TABLE 3

Seasonal Labor Needs -- Palo Verde Valley -- by Months and Tasks

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number or workers
January	Cotton: Picking Lettuce: Cutting	407,610 pounds 10,000 crates	200 pounds 33 crates (in 5 hours)	2,038 300 (of 5 hours)	25 20	82 15 (for 20 days)
February	Totals Lettuce: Hoeing	130 acres	1 acre	2,338 130	25 9	94 man-months 15 (for 9 days)
March	Totals Alfalfa: Baling Lettuce: Cutting	2,112 tons 5,500 crates	3 tons (in 6 hours) 33 crates (in 5 hours)	130 422 of (6 hours)* 167 (of 5 hours)	25 13 12	6 man-months 33 (from 15th to 31st) 15 (from 1st to 25th)
April	Totals Alfalfa: Baling	4,224 tons	3 tons (in 6 hours)	589 844 (of 6 hours)*	26 26	23 man-months 33
May	Totals Alfalfa: Baling Cotton: Chopping Grain: Threshing (by stationary machine)	4,224 tons 4,050 acres 811 tons	3 tons (in 6 hours) 2.5 acres 1.5 tons (in 12 hours)	844 844 (of 6 hours)* 1,620 433 (of 12 hours)*	26 26 26 26	33 man-months 33 63 17
June	Totals Alfalfa: Baling Cotton: Chopping Hoeing Grain: Threshing	4,224 tons 4,045 acres 4,045 acres 811 tons	3 tons (in 6 hours) 2.5 acres 4 acres 1.5 ton (in 12 hours)	2,897 844 (of 6 hours)* 1,620 1,011 433 (of 12 hours)*	26 26 26 26 26	112 man-months 33 63 39 17
July	Totals Alfalfa: Baling	2,112 tons	3 tons (in 6 hours)	3,908 422 (of 6 hours)*	26 26	151 man-months 16

(Table continued on next page.)



DATE	DESCRIPTION	AMOUNT	CHECK NO.	DEBIT	CREDIT	BALANCE
1/1/1912	Balance					100.00
1/15/12	John Doe	50.00				150.00
2/1/12	John Doe	25.00				175.00
2/15/12	John Doe	25.00				200.00
3/1/12	John Doe	50.00				250.00
3/15/12	John Doe	25.00				275.00
4/1/12	John Doe	50.00				325.00
4/15/12	John Doe	25.00				350.00
5/1/12	John Doe	50.00				400.00
5/15/12	John Doe	25.00				425.00
6/1/12	John Doe	50.00				475.00
6/15/12	John Doe	25.00				500.00
7/1/12	John Doe	50.00				550.00
7/15/12	John Doe	25.00				575.00
8/1/12	John Doe	50.00				625.00
8/15/12	John Doe	25.00				650.00
9/1/12	John Doe	50.00				700.00
9/15/12	John Doe	25.00				725.00
10/1/12	John Doe	50.00				775.00
10/15/12	John Doe	25.00				800.00
11/1/12	John Doe	50.00				850.00
11/15/12	John Doe	25.00				875.00
12/1/12	John Doe	50.00				925.00
12/15/12	John Doe	25.00				950.00
1/1/13	John Doe	50.00				1000.00

Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Required number of workers
July (cont'd) August	Cotton: Hoeing	4,050 acres	4 acres	1,012	26	39
	Totals			1,434	26	56 man-months
	Melons (honeydew):					
	Hoeing and thinning	30 acres	1 acre	30	2	15 (for 2 days)
	Hoeing	30 acres	1 acre	30	2	15 (for 2 days)
September	Hoeing and turning vines	30 acres	4 acres	8	1	8 (for 1 day)
	Alfalfa: Baling	2,112 tons	3 tons (in 6 hours)	422 (of 6 hours)*	26	16
	Threshing	118 tons	900 pounds (in 12 hours)	211 (of 12 hours)*	26	9
	Totals			701	26	27 man-months
	Alfalfa: Baling	2,112 tons	3 tons (in 6 hours)	422 (of 6 hours)*	26	10
October	Threshing	118 tons	900 pounds (in 12 hours)	211 (of 12 hours)*	26	9
	Cotton: Picking	815,220 pounds	250 pounds	3,261	26	126
	Totals			3,894	26	150 man-months
	Alfalfa: Threshing	118 tons	900 pounds (in 12 hours)	211 (of 12 hours)*	26	9
	Cotton: Picking	2,445,660 pounds	250 pounds	9,783	26	377
November	Sorghums: Cutting off heads by hand	1,200 acres	1 acre	1,200	26	47
	Threshing	463 tons	2 tons	185*	26	8
	Lettuce: Thinning	170 acres	0.5 acre	340	23	15 (for 23 days)
	Melons: Picking	1,680 crates	45 crates	38	8	5 (from 23rd to 31st)
	Totals			11,757	26	452 man-months
	Cotton: Picking	3,260,880 pounds	225 pounds	14,493	25	580†
	Sorghums: Cutting off heads by hand	1,571 acres	1 acre	1,571	25	63
	Threshing	927 tons	2 tons	370*	25	15
	Lettuce: Hoeing, and removing "doubles"	170 acres	0.75 acre	227	15	15 (for 15 days)
	Totals					

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Table continued

Month	Crop and task	Size of task	Output per man-day	Required man-days	Available days	Require number of workers
November (cont'd)	Melons: Picking †	1,680 crates	45 crates	38	8	from 1st to 8th)
	Totals			16,699	26	642 man-months
December	Cotton: Picking	1,222,830 pounds	200 pounds	6,114	25	245
	Sorghums: Threshing	927 tons	2 tons	370*	25	15
	Lettuce: Thinning	130 acres	0.5 acre	260	17	15 (for 17 days)
	Cutting	2,000 crates	33 crates (in 5 hours)	60 (of 5 hours)	4	15 (for 4 days)
	Totals			6,804	26	262 man-months

\*Estimated portion of job done by seasonal workers.

†At peak of cotton picking, the maximum output of gins was about 100 bales per day. This would indicate from 625 to 700 pickers.

‡Melons seldom picked this late. Experimental in 1935.







TABLE 4

Summary of Seasonal Labor Needs by Months  
Palo Verde Valley

Month	Required man-days of seasonal labor	Available work days	Required man-months of seasonal labor
January	2,338	25	94
February	130	25	6
March	589	26	23
April	844	26	33
May	2,897	26	112
June	3,908	26	151
July	1,434	26	56
August	701	25	27
September	3,894	26	150
October	11,757	26	452
November	16,699	25	642
December	6,804	25	262
Totals	51,995	—	2,008



TABLE 4  
Summary of Seasonal Labor Needs by Month  
Palo Verde Valley

Month	Required man-days of seasonal labor	Available work days	Required man-months of seasonal labor
January	2,338	28	118 24
February	1,907	28	151 6
March	1,907	28	98 23
April	1,907	28	98 33
May	2,338	28	150 118
June	2,908	28	151 151
July	2,434	28	98 58
August	1,701	28	100 27
September	2,338	28	150
October	11,737	28	1,008 452
November	16,892	28	642
December	6,804	28	262
Total	51,992	—	2,008